Vertex Standard

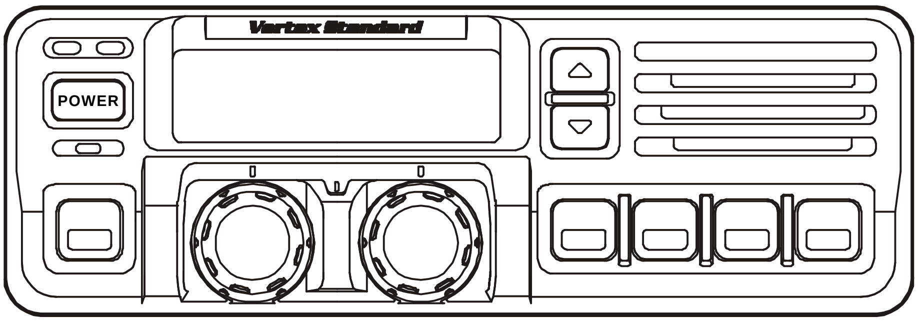
VHF FM Transceiver

VX-5500V

Service Manual

 EC034N90A

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Introduction

This manual provides technical information necessary for servicing the VX-5500V VHF FM Transceiver.

Servicing this equipment requires expertise in handling surface-mount chip components. Attempts by non-qualified persons to service this equipment may result in permanent damage not covered by the warranty, and may be illegal in some countries.

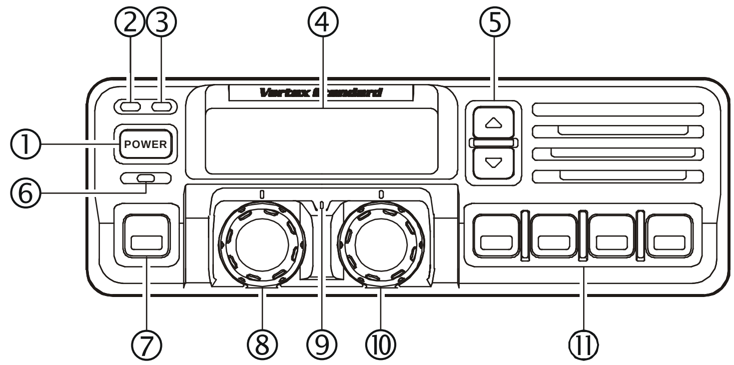
Two PCB layout diagrams are provided for each double-sided circuit board in the Transceiver. Each side of is referred to by the type of the majority of components installed on that side (“leaded” or “chip-only”). In most cases one side has only chip components, and the other has either a mixture of both chip and leaded components (trimmers, coils, electrolytic capacitors, ICs, etc.), or leaded components only.

While we believe the technical information in this manual to be correct, VERTEX STANDARD assumes no liability for damage that may occur as a result of typographical or other errors that may be present. Your cooperation in pointing out any inconsistencies in the technical information would be appreciated.

Contents

CONTROLS & CONNECTORS

Front Panel

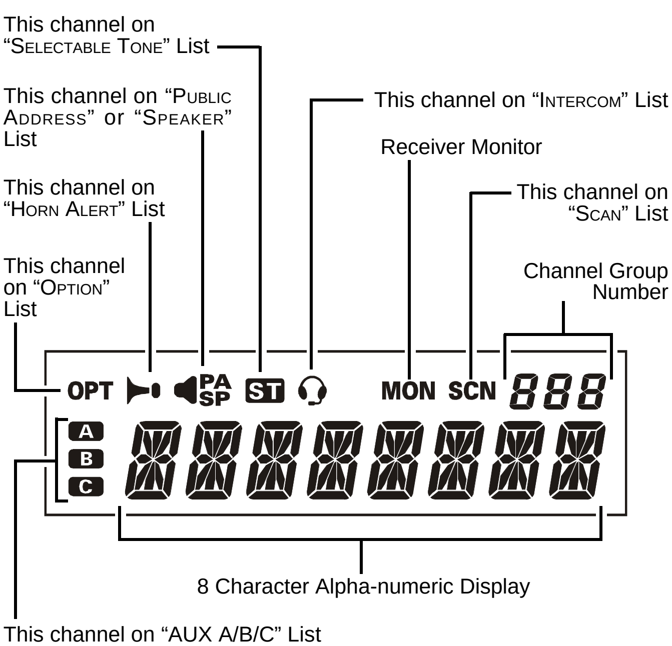


① **POWER Button**
Press the button to turn the transceiver ON and OFF.

② **TX Indicator**
This lamp glows red when the radio is transmitting.

③ **BUSY Indicator**
This lamp glows green when the channel is busy.

④ **Liquid Crystal Display**
The display include an 8-character alpha-numeric section showing channel and group names, status and identity information, and error messages. Additional indicators on the display show priority channel assignments and scan include / exclude selection.



⑤ **▲/▼ Button**
Pressing these buttons changes the current group (and displayed group number or name). Holding this button for more than 1/2 second causes the function to repeat.

⑥ **SQC Indicator**
This lamp glows orange when incorrect position at the setting of CE49.

⑦ **Programmable Function Button (PF button)**
This button can be set up for special applications, such as high/low power selection, monitor, dimmer, talk-around, and call alert function, as determined by your network requirements and programmed by your VERTEX STANDARD dealer.

⑧ **VOLUME Knob**
This knob sets the volume of the receiver.

⑨ **EMERGENCY Microphone**
The emergency microphone is located behind this small slit. When the emergency feature is activated, this Microphone is enabled.

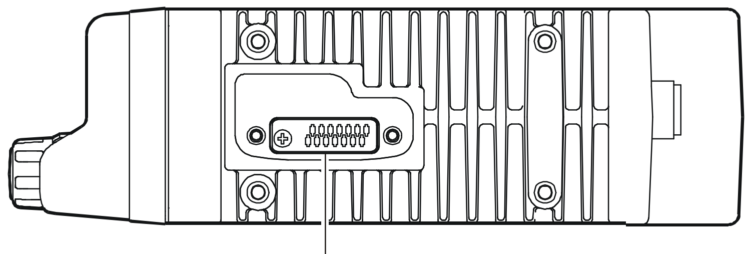
⑩ **CHANNEL Selector Knob**
This knob select the operating channel.

⑪ **Programmable Function Button (PF button)**
This button can be set up for special applications, such as high/low power selection, monitor, dimmer, talk-around, and call alert function, as determined by your network requirements and programmed by your VERTEX STANDARD dealer.

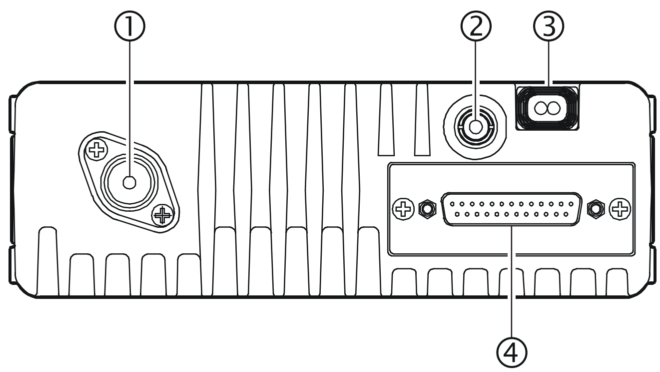
CONTROLS & CONNECTORS

Side Panel

Microphone Jack (It is on both sides.)
Connect the microphone plug to this jack.



REAR *(Heatsink)*



① **Antenna Socket**
The 50-ohm coaxial feedline to the antenna must be connected here, using a type-M (PL-259) plug.

② **External Speaker Jack**
An external loudspeaker may be connected to this 2-contact, 3.5-mm mini-phone jack.
Caution: *Do not connect this line to ground, and be certain that the speaker has adequate capability to handle the audio output from the VX-5500.*

③ **13.8-V DC Power Connector**
The supplied DC power cable must be connected to this 4-pin connector. Use only the supplied fused cable, extended if necessary, for power connection.

④ **DSUB 25-Pin Accessory Connector**
External TX audio line input, PTT (Push To Talk), Squelch, and external RX audio line output signal may be obtained from this connector for use with accessories such as data transmission/reception modems, ets.

BASIC OPERATION OF THE TRANSCEIVER

Important! *- Before turning on the radio the first time, confirm that the power connections have been made correctly and that a proper antenna is connected to the antenna jack.*

Switching Power ON/OFF

Push the **POWER** switch turn on the radio. The display will become illuminated. The radio will start up on the last channel used prior to shutdown during the previous operating session.

Turn the **CHANNEL** selector knob to choose the desired operating channel. A channel name will appear on the display. If you want to select the operating channel from a different Memory Channel Group, press the **UP** (▲) or **DOWN** (▼) button to select the Memory Channel Group you want before selecting the operating channel.

Setting the Volume

Turn the **VOLUME** knob clockwise to increase the volume, and counterclockwise to decrease it. If no signal is present, press and hold in the **MON** button more than 1/2 seconds; background noise will now be heard, and you may use this to set the **VOLUME** knob for the desired audio level. Press and hold the **MON** button more than 1/2 seconds to quiet the noise and resume normal (quiet) monitoring.

Transmitting

To transmit, wait until the "**BUSY**" indicator is off (the channel is not in use), and press the **PTT** (Push-To-Talk) switch on the side of the microphone (the "**TX**" indicator will appear or the "**TX**" indicator will glow red). While holding in the **PTT** switch, speak across the face of the microphone in a clear, normal voice level, and then release the **PTT** switch to receive.

Selecting Groups and Channels

❍ Press the **UP** (▲) or **DOWN** (▼) button (repeatedly, if necessary) to select a different group of channels.

❍ Turn the **CHANNEL** selector knob to select a different channel ***within the current group.***

Automatic Time-Out Timer

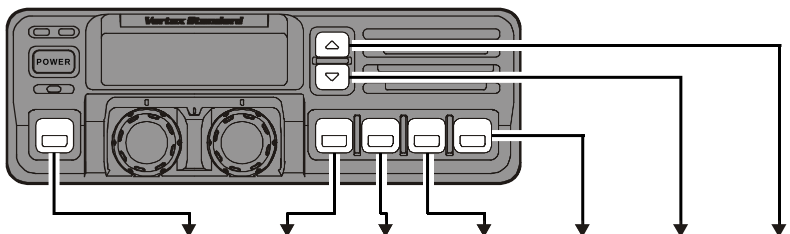
If the selected channel has been programmed for automatic time-out, you must limit the length of each transmission. While transmitting, a beep will sound five seconds before time-out. Another beep will sound just before the deadline; the "**TX**" indicator will disappear and transmission will cease soon thereafter. To resume transmitting, you must release the **PTT** and wait for the "penalty timer" to expire (if you press the **PTT** before this timer expires, the timer restarts, and you will have to wait another "penalty" period.)

ADVANCED OPERATION

Programmable Function Button (PF button)

The VX-5500 includes the seven **Programmable Function Buttons (PF button)**. The **PF** button functions can be customized, via programming by your VERTEX STANDARD dealer, to meet your communications/network requirements. Some features may require the purchase and installation of optional internal accessories. The possible **PF** button programming features are illustrated at the below, and their functions are explained on next page.

For further details, contact your VERTEX STANDARD dealer. For future reference, check the box next to each function that has been assigned to the **PF** button on your particular radio, and keep it handy.



Functions	Programmable Function Button (PF button)													
	<1.5 sec	>1.5 sec	<1.5 sec	>1.5 sec	<1.5 sec	>1.5 sec	<1.5 sec	>1.5 sec	<1.5 sec	>1.5 sec	<1.5 sec	>1.5 sec	<1.5 sec	>1.5 sec
None														
SCAN (SCN)														
Dual Watch														
Call/Reset														
Talk-Around (TA)														
Alpha Numeric (A/N)														
DIMMER (DIM)														
Emergency (EMG)														
Horn Alert (HA)														
Home Channel (HOM)														
Intercom (IC)														
Low Power (LOW)														
GRP UP														
GRP DWN														
CH UP														
CH DWN														
AUX A														
AUX B														
AUX C														
Public Address (PA)														
Monitor (MON)														
RCL														
Selectable Tone (ST)														
SP*														
Squelch Level (SQL)														
Compander														
Encryption** (OPT)														

* requires RMK-4000   ** requires Encryption Unit

ADVANCED OPERATION

Channel Scan

The Scanning feature is used to monitor multiple signals programmed into the transceiver. While scanning, the transceiver will check each channel for the presence of a signal, and will stop on a channel if a signal is present.

To activate scanning:

- ❍ Press the assigned **PF** button of the "**Scan**" momentarily to activate scanning.
- ❍ The scanner will search the channels, looking for active ones; it will pause each time it finds a channel on which someone is speaking.

To stop scanning

- ❍ Press the assigned **PF** button of the "**Scan**".
- ❍ Operation will revert to the channel to which the **CHANNEL** selector knob is set.

Note: Your dealer may have programmed your radio to stay on one of the following channels if you press the **PTT** switch during scanning pause:

- ❒ Current channel ("Talk Back")
- ❒ "Last Busy" channel
- ❒ "Priority" channel
- ❒ "Home" channel
- ❒ Scan Start" channel

Dual Watch

The Dual Watch feature is similar to the Scan feature, except that only two channels are monitored:

- ❒ The current operating channel; and
- ❒ The "Priority" channel.

To activate Dual Watch:

- ❍ Press the assigned **PF** button of the "**Dual Watch**".
- ❍ The scanner will search the two channels; it will pause each time it finds a channel on which someone is speaking.

To stop Dual Watch:

- ❍ Press the assigned **PF** button of the "**Dual Watch**".
- ❍ Operation will revert to the channel to which the **CHANNEL** selector knob is set.

ARTS (Auto Range Transpond System)

This system is designed to inform you when you and another ARTS-equipped station are within communication range.

During ARTS operation, your radio automatically transmits for about 1 second every 25 (or 55) seconds (the interval is programmed by Dealer) in an attempt to Shake hands with the other station. If you move out of range for more than one minutes, your radio senses that no signal has been received, a ringing beeper will sound. If you subsequently move back into range, as soon as the other station transmits, your beeper will sound.

The PF Button Function

The **PF** (Programmable Function) button can be programmed by the dealer to provide two of the other functions described below.

To activate the primary Accessory function, press the **PF** button momentarily. To access the secondary Accessory function (which may include the Alarm), press and hold the **PF** button for 1.5 seconds or longer.

Call/Reset

When this feature is programmed and a selective call has been received, momentarily press the assigned **PF** button of the "**Call/Reset**" to reset the flashing indicator and mute the receiver, otherwise press the assigned **PF** button of the "**Call/Reset**" to sent your radio's identification code (ANI) to the dispatcher.

Talk-Around

The feature causes the assigned **PF** button of the "**Talk-Around**" to select simplex operation on semi-duplex channels: the transmit frequency becomes the same as the receive frequency (regardless of any programmed offset for the channel).

Note: *This feature has no effect on simplex channels. After pressing the button, "**-TAKARD-**" is displayed on the LCD.*

Alpha Numeric

Press the assigned **PF** button of the "**Alpha Numeric**" to switch the display between the Group/Channel number, and the Group/Channel name (alphanumeric). A tone will sound each time you switch between numerical and alphanumerical display.

ADVANCED OPERATION

DIM

Press the assigned **PF** button of the "**DIM**" to adjust the brightness of the display and key backright.

EMG (Emergency)

Press the assigned **PF** button of the "**EMG**" to initiate an emergency call (requires ANI board). When an emergency call is made, not tone is emitted and the display does not change. To end the emergency call, turn the transceiver power OFF.

HA (Horn Alert)

Press the assigned **PF** button of the "**HA**" to turn the Horn Alert function ON or OFF. If you receive a call from the base station with 2Tone or DTMF signaling, horn alert will activate.
When you turn Horn Alert ON, a tone will sound and " " appears on the display.

Home (Home Channel)

Press the assigned **PF** button of the "**Home**" to select the pre-programmed Home Channel. Press it again to return to the previous channel. If used while scanning, pressing this key a second time will change to the revert channel.

IC (Intercom)

This feature requires dual head configuration. Press the assigned **PF** button of the "**IC**" to turn the intercom feature ON or OFF. While ON, you can press the PTT switch to communicate to another control head operator without transmitting over the air. When you press this key, a tone sounds and "" appears on the display. The intercom can be used even while scanning and receiving a call.

Low Power

Press the assigned **PF** button of the "**Low Power**" to set the radio's transmitter to the "Low Power" mode.
Press this key again to return to "High Power" operation when in difficult terrain.

GRP UP/DWN

Press the assigned **PF** button of the "**GRP UP**" or "**GRP DWN**" to select a different group of channels.

CH UP/DWN

Press the assigned **PF** button of the "**CH UP**" or "**CH DWN**" to select a different channel within the current group.

AUX A/B/C

Press the assigned **PF** button of the "**AUX A**", "**AUX B**", or "**AUX C**" to turn the output port (respectively).

PA (Public Address)

Press the assigned **PF** button of the "**PA**" to use the transceiver as a PA amplifier. When you enable this function, a tone sounds and "PA" appears on the display. The public address can be used even while scanning and receiving a call.

MONI (Monitor)

Press the assigned **PF** button of the "**MONI**" momentarily to cancel CTCSS and DCS signaling squelch; the "**MON**" icon appears on the display. Press and hold this key for 1/2 seconds to hear background noise (unmute the audio); the **MON** icon blinks on the display.

RCL (Channel Recall)

During scan, you can press the assigned **PF** button of the "**RCL**" to select the last called channel.

ST (Selectable Tone)

Press the assigned **PF** button of the "**Selectable Tone**", then rotate the CHANNEL selector knob to select a 2-Tone.

SP

Press the assigned **PF** button of the "**SP**" to switch "Front panel", "Front panel & Body" and "Body" speaker. When "Body" is selected, a tone sounds and the "SP" icon appears on the display. You can use this function while scanning and receiving a call. However, all audio will be emitted from the PA speaker.

SQL (Squelch Level)

You can manually adjust the squelch level using this function:

1. Press the assigned **PF** button of the "**SQL**". A tone sounds and SQL appears on the display with the current squelch level.
2. Rotate the **CHANNEL** selector knob to select the desired level.
3. Press the this key. A tone sounds and the display returns to the normal channel.

COMP (Compander)

Press the **PF** button assigned to the "**COMP**" function to turn the "Compander" IC ON or OFF. This IC contains two variable gain circuits configured for compressing and expanding the dynamic range of the radio's transmitted audio signal.

When you enable this function, the signal-to-noise radio can be improved by reducing the transmitted audio dynamic range.

Encryption (Option)

When the Voice Scrambler feature is enabled, pressing the assigned **PF** button of the "**Encryption**" toggles the Scrambler on and off.

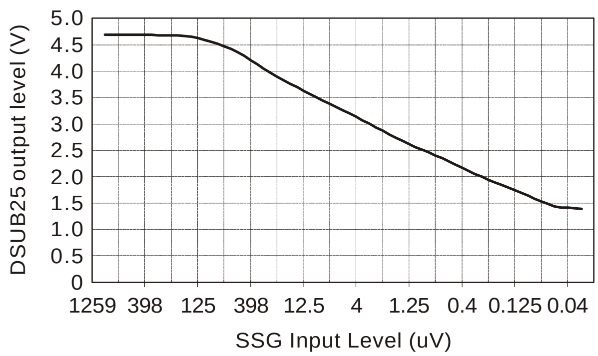
OPTIONAL ACCESSORIES

MH-25B7A	Microphone
MH-53C7A	Heavy Duty Microphone
MH-53A7A	Heavy Duty Microphone w/Noise Canceler
MH-53B7A	Heavy Duty DTMF Microphone w/Noise Canceler
CE49	Programming Software
CT-70	Radio Programming Cable (Requires VPL-1)
CT-71	Radio to PC Programming Cable
CT-72	Radio to Radio Programming Cable
CT-93	Cable for RMK-4000 (33 ft,10 m)
CT-81	Cable for RMK-4000 (20 ft, 6 m)
CT-82	Cable for RMK-4000 (8 ft, 2.5 m)
CT-83	Cable for RMK-4000 (2 ft, 0.6 m)
CNT-6000	Control Head
RF DECK	RF Deck w/MMB-75 (for Dual Band Installations)
RMK-4000SH	Remote Kit (for Single Transceiver)
RMK-4000DH	Remote Kit (for Dual-Head Installations)
RMK-4000DB	Remote Kit (for Dual Band Installations)
RMK-4000DBH	Remote Kit (for Dual Band plus Dual Head Installations)
F2D-8	2-Tone Decode Unit (Requires FIF-7)
F5D-14	5-Tone ENC-DEC Unit (Requires FIF-7)
VTP-50	VX-Trunk Unit (Requires FIF-7)
FVP-25	Band inversion scrambler/DTMF paging Unit (Requires FIF-7)
FVP-35	Encryption Unit (Rolling code voice scrambler; Requires FIF-7)
MDC1200	Digital ANI encoder Unit (Requires FIF-7)
FP-1023	External 23A Power Supply
MLS-100	Mobile Loud speaker (12 W Peak Power)
MMB-75	Mobile Mounting Bracket
MMB-76	Locking Mobile Mounting Bracket
FIF-7	Inter face Board (for F2D-8, F5D-14, VTP-50, FVP-25)
CN-6	Inter face Board (for Accessories)
LF-1	Line Filter

DSUB 25-PIN ACCESSORY CONNECTOR

Pin 1: RSSI [Analog Output]

A DC voltage proportional to the strength of the signal currently being received (Receiver Signal Strength Indicator) is provided on this pin. This low impedance output is generated by the receiver IF sub-system and buffered by an internal op-amp. Typical voltages are graphed as follows:

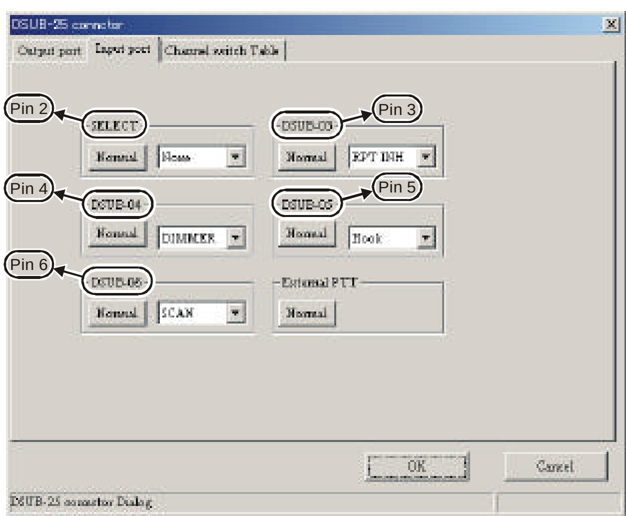


Pin 2, 3, 4, 5 & 6: SELECT, DSUB 03, DSUB 04, DSUB 05 & DSUB 06

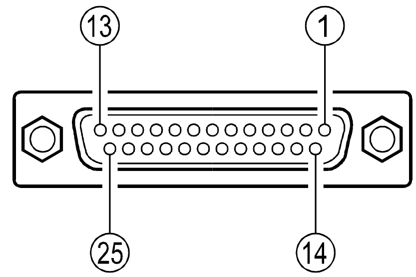
[Digital Input Port]

These input port features can be programmed via the CE49 programmer. The same item can not be chosen twice.

To select the "Input port" page, (Common ➠ DSUB-25 ➠ Input port).



LOGIC level (+5V / 0V) input (Low active).
High Impedance input.



DSUB 25-Pin Numbering

None

MON This feature is the same as pressing and holding in the Monitor key.

DIMMER LCD illumination dimmer "on."

Hook Activates the Hook1 feature.

SCAN Activates the scanner.

G-SCAN Activates the Group scanner.

RPT INH Disables the repeater feature during Multi Deck operation.

EMG Activates the Emergency feature.

Home Switches to the Home Channel.

CH SW0 Memory channel recall (Channel Switch Table bit 0)

CH SW1 Memory channel recall (Channel Switch Table bit 1)

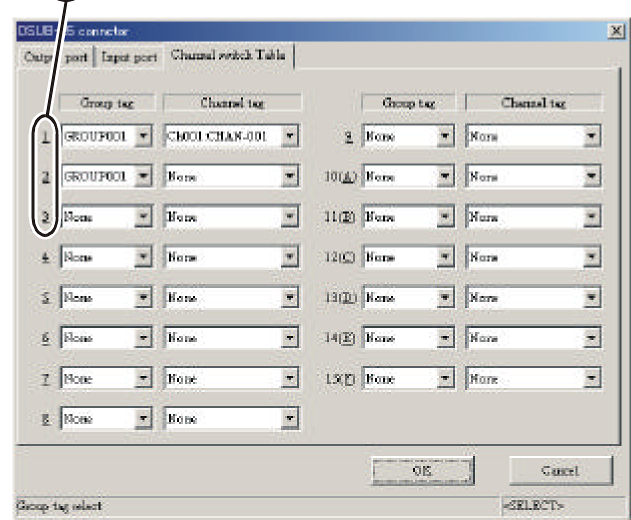
CH SW2 Memory channel recall (Channel Switch Table bit 2)

CH SW3 Memory channel recall (Channel Switch Table bit 3)

Example

If you assign "CH SW0" and "CH SW1" to the Universal Input Port, you can recall Channels 1~3 as shown below.

Channel	CH SW0	CH SW1
1	1	0
2	0	1
3	1	1



DSUB 25-PIN ACCESSORY CONNECTOR

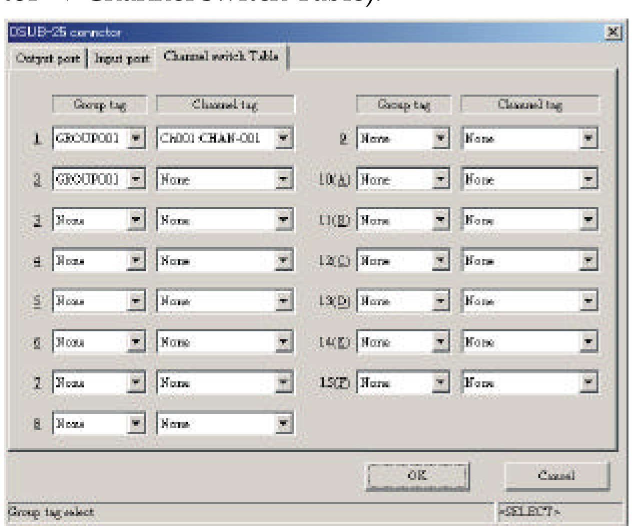
Similarly, if you assign "CH SW0," "CH SW1," and "CH SW2" to the Universal Input Port, you can recall Channels 1~7 as shown below:

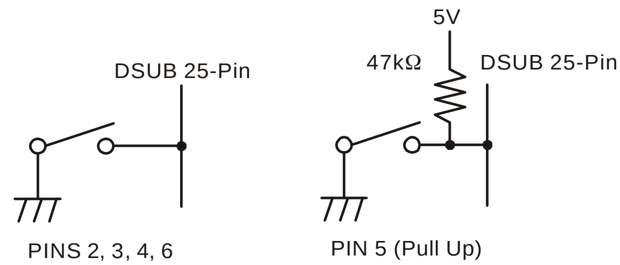
Channel	CH SW0	CH SW1	CH SW2
1	1	0	0
2	0	1	0
3	1	1	0
4	0	0	1
5	1	0	1
6	0	1	1
7	1	1	1

If you need to recall all memory channels (15 CH) from the External Controller via the Uni-versal Input Port, you should assign the "All Channel Recall" Command (CH SW 0 ~ CH SW 3) to the Universal Input Port.
In this case:

Channel	CH SW0	CH SW1	CH SW2	CH SW3
1	1	0	0	0
2	0	1	0	0
3	1	1	0	0
4	0	0	1	0
5	1	0	1	0
6	0	1	1	0
7	1	1	1	0
8	0	0	0	1
9	1	0	0	1
10	0	1	0	1
11	1	1	0	1
12	0	0	1	1
13	1	0	1	1
14	0	1	1	1
15	1	1	1	1

The Memory Channel is determined via the CE49 Programmer. (Common ➠ DSUB-25pin connector ➠ Channel switch Table).





Sample Circuit

Pin 7: E [GND]
Ground for all logic levels and power supply return.

Pin 8: A KEY OUT [Universal Output Port]
Open collector output. Output voltage 0 ~ 5 V, Max. sink current 30 mA.
The possible programming features (use CE49) are illustrated below.

A PORT/B PORT/C PORT/D PORT/E PORT/ None

Refer to the "Pins 20, 21, & 22" section for details.

Pin 9: TXD [Digital Output for Alignment software]
Connect to the RS232C cable (requires FIF-8 and CT-88)

Pin 10: RXD [Digital Input for Alignment software]
Connect to the RS232C cable (requires FIF-8 and CT-88)

Pin 11: EXT PTT
Shorting this port to ground causes the transceiver to be placed in the Transmit mode, while opening the connection to this port returns the transceiver to the Receive mode.

Pin 12: MIC MUTE
MIC mute on: Level High (5V)
MIC mute off: Open
LOGIC level (+5V / 0V) output.
When the PTT/EXT PTT switch is pressed, this pin switches to "open."

DSUB 25-PIN ACCESSORY CONNECTOR

Pin 13: TXDI **[Digital Input for DATA Communications]**

❍ TX Hi-speed Data Input Type (jumper JP2005). Input level 800 mV/600 Ohms, Max.input 1.2V

❍ Tx Low-speed Data input Type (Jumper JP2006). Input level 40 mV/600-Ohms

If the Jumper setting is "Low-speed Data" (JP2006 jumpered), this port is usable in the AUDIO (300~3000 Hz) range.
If the jumper setting is "HI-speed Data" (JP2005 jumpered), this port is usable for 9600 bps DATA communications, because the filter and limiter are not engaged in the Audio line.

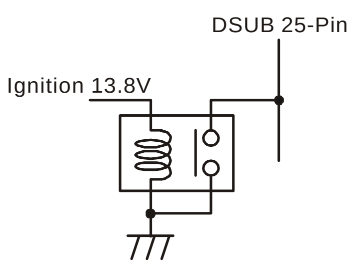
Pin 14: DC OUT **[13.4 V/5 V DC Output]**

❍ Switched 13.8V output for supplying power to an accessory (jumper JP2008).

❍ Switched and regulated DC 5.0V output for supplying power to an accessory (jumper JP2007).
Maximum output current is 200 mA

Pin 15: IGN **[Ignition Sense feature]**

The VX-5500 may automatically be switched to the STAND-BY mode when the vehicle's igni-tion key is turned on.
Maximum current is 20 mA.
This feature is only enabled on transceivers con-figured for Dual Deck operation.



Pin 16: NC **[NO connection]**

Pin 17: RX DO **[Digital Output for DATA Communica-tions]**

❍ RX Hi-speed Data Output Type (jumper JP2003). output level 600 mV/10k Ohms

❍ RX Low-speed Data Output Type (jumper JP2004). output level 200 mV/600 Ohms

If the Jumper setting is "Low-speed Data" (JP2004 jumpered), this port is usable in the AUDIO (300~3000 Hz) range.
If the jumper setting is "HI-speed Data" (JP2003 jumpered), this port is usable for 9600 bps DATA communications, because the filter and limiter are not engaged in the Audio line.

Pin 18: E **[GND]**

Ground for all logic levels and power supply re-turn.

Pins 19, 20, 21, & 22: DSUB 19, DSUB 20, DSUB 21 and DSUB 22

[Universal Output Port]

LOGIC level (+5V / 0V) output.
The logic output appears at these pins when the front panel's PF key is turned on.
The possible programming features (use CE49) are illustrated below.
If the HA feature is assigned to these ports, a cur-rent amplifier must be connected between the Horn circuit and the port.

None/A PORT/B PORT/C PORT/D PORT/E PORT/HA PORT

Pin 23: EXT SQL **[Squelch Signal Output]**

Open collector output. Max. sink current 10 mA.
A Signal is present (Squelch is open): Level High
No Signal is present (Squelch is closed): Open
When you connect the solder jumper on J2002, this port changes to PULL UP (5 V) output.
This status can be changed by CE49 programmer.

Pin 24: SP MUTE **[Speaker Mute Output]**

Open collector output.
External Speaker mute on: Level High
External Speaker mute off: Open

Pin 25: E **[GND]**

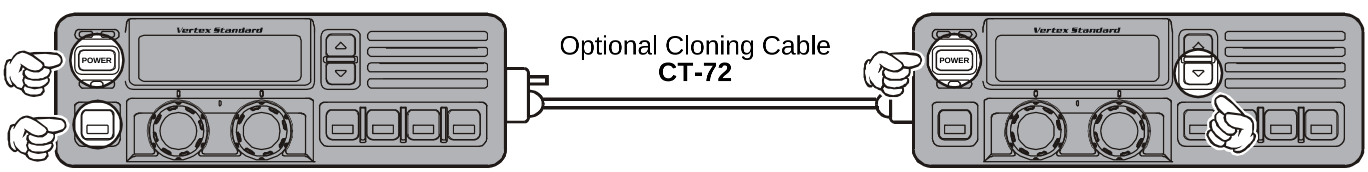
Chassis ground.

Note:

The **VX-5500** includes a convenient "Clone" feature, which allows the programming data from one transceiver to be transferred to another **VX-5500**. Here is the procedure for Cloning one radio's data to another.

Note: When a cloning isn't made, you correct the following part using "CE49."
When a "Radio to Radio Clone" which is in the "Miscellaneous" menu is "Disabled," change this menu to "Enabled."

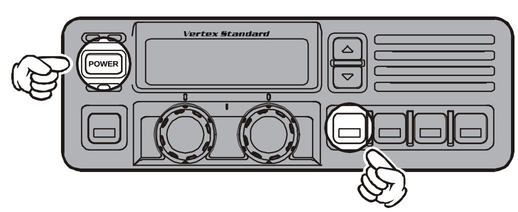
1. Turn both transceivers off.
2. Remove the plastic cap and its two mounting screws from the **Microphone** jack on the transceiver. Do this for both transceivers.
3. Connect the optional **CT-72** cloning cable between the **Microphone** jacks of the two transceivers.
4. On the ***Destination*** transceiver, press and hold the **PF Button** (just below the **POWER Button**) while turning the transceiver on.
5. Now, on the ***source*** transceiver, press and hold the ▼ **Button** while turning the transceiver on.Data will now be transferred to the ***Destination*** transceiver from the ***source*** transceiver.
6. If there is a problem during the cloning process, sound an error beep from source the transceiver. Check your cable connections and battery voltage, and try again.
7. If cloning is a successful, turn the ***Destination*** transceiver off. Now turn the ***source*** transceiver off.
8. Disconnect the **CT-72**. Replace the plastic cap and its two mounting screws.
9. You can then turn the transceivers back on, and begin normal operation.



DealerProgramming of VTP-50 and F5D-14

These procedures are designed to be used by the installing technician after the **VTP-50** and **F5D-14** has been installed in the transceiver. To program a **VX-5500**'s **VTP-50** and **F5D-14** board, you will need the **CT-71** programming interface cable, the **CE-26** Programming diskette, and an IBM PC/AT or PS/2-compatible type computer.

To enter the Programming mode, use the following procedure:
1. Turn the transceiver off.
2. Turn on the transceiver while holding in the **PF Button** (just below the ▼ **Button**).



Specifications

General

Number of Channels:	250 channels
Frequency Range:	148 - 174 MHz
Channel Spacing:	5 / 10 / 12.5 / 15/ 20 / 25 / 50 kHz
Power Supply Voltage:	13.8V DC ±15 %
Current Consumption:	Standby: 500 mA
	Receive: 2.5 A
	Transmit: 15 A (High)
Ambient Temperature Range:	–22°F to +140°F (–30°C to +60°C)
Frequency Stability:	Better than ±2.5 ppm
RF Input-Output Impedance:	50 Ohms
Audio Output Impedance:	4 Ohms
Dimensions:	7" (w) x 2.4" (H)x 7.7" (D) (178 x 60 x 195 mm)
Weight (Approx.):	4.9 lbs. (2.2 kg)

Receiver (Measurements made per EIA standard TIA/EIA-603)

Circuit Type:	Double-conversion Super-heterodyne
Sensitivity(EIA 12 dB SINAD):	0.25 μV
Adjacent Channel Selectivity:	85/75 dB
Intermodulation:	80/75 dB
Spurious and Image Rejection:	90 dB
Audio Output:	12 W @ 4 Ohms w/5 % THD

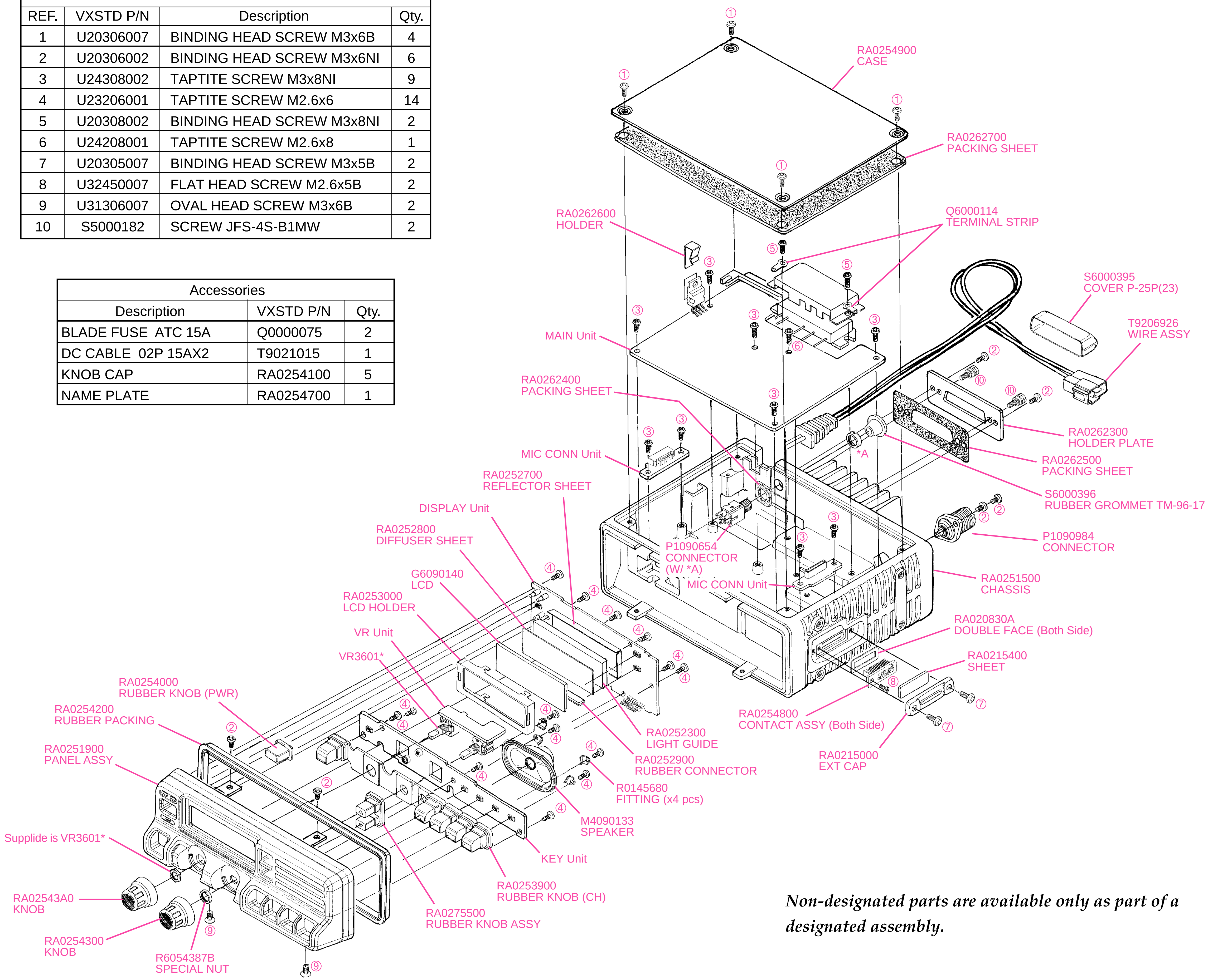
Transmitter (Measurements made per EIA standard TIA/EIA-603)

Power Output:	50 (Low:25 W)
Modulation:	16K0F3E, 11K0F3E
Max Deviation:	5.0/2.5 kHz
Conducted Spurious Emissions:	80 dB Below Carrier
FM Hum & Noise:	50/45 dB
Audio Distortion (@ 1 kHz):	< 5 %

Measurements per EIA standards unless noted above.
Specifications subject to change without notice or obligation.

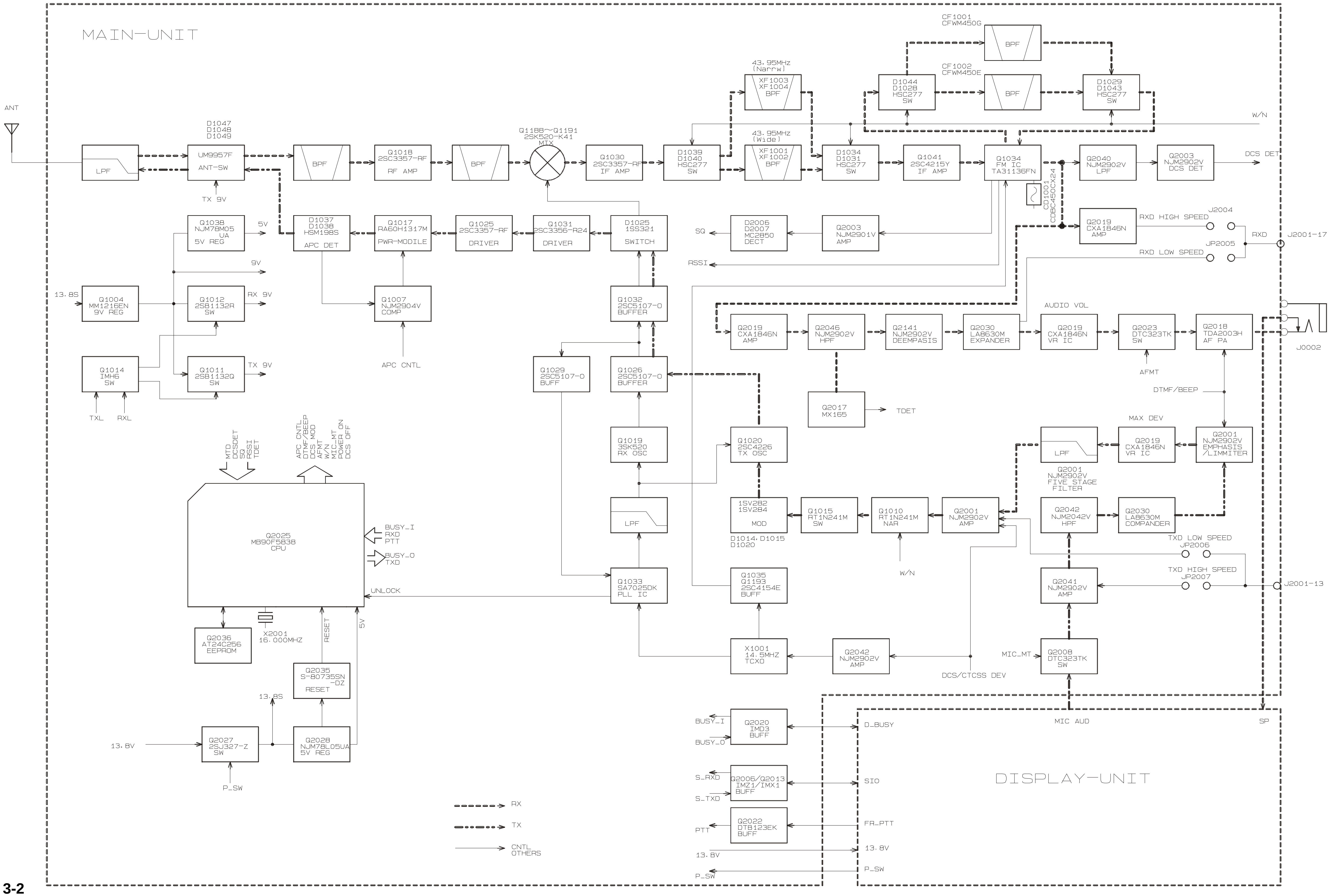
Screw List			
REF.	VXSTD P/N	Description	Qty.
1	U20306007	BINDING HEAD SCREW M3x6B	4
2	U20306002	BINDING HEAD SCREW M3x6NI	6
3	U24308002	TAPTITE SCREW M3x8NI	9
4	U23206001	TAPTITE SCREW M2.6x6	14
5	U20308002	BINDING HEAD SCREW M3x8NI	2
6	U24208001	TAPTITE SCREW M2.6x8	1
7	U20305007	BINDING HEAD SCREW M3x5B	2
8	U32450007	FLAT HEAD SCREW M2.6x5B	2
9	U31306007	OVAL HEAD SCREW M3x6B	2
10	S5000182	SCREW JFS-4S-B1MW	2

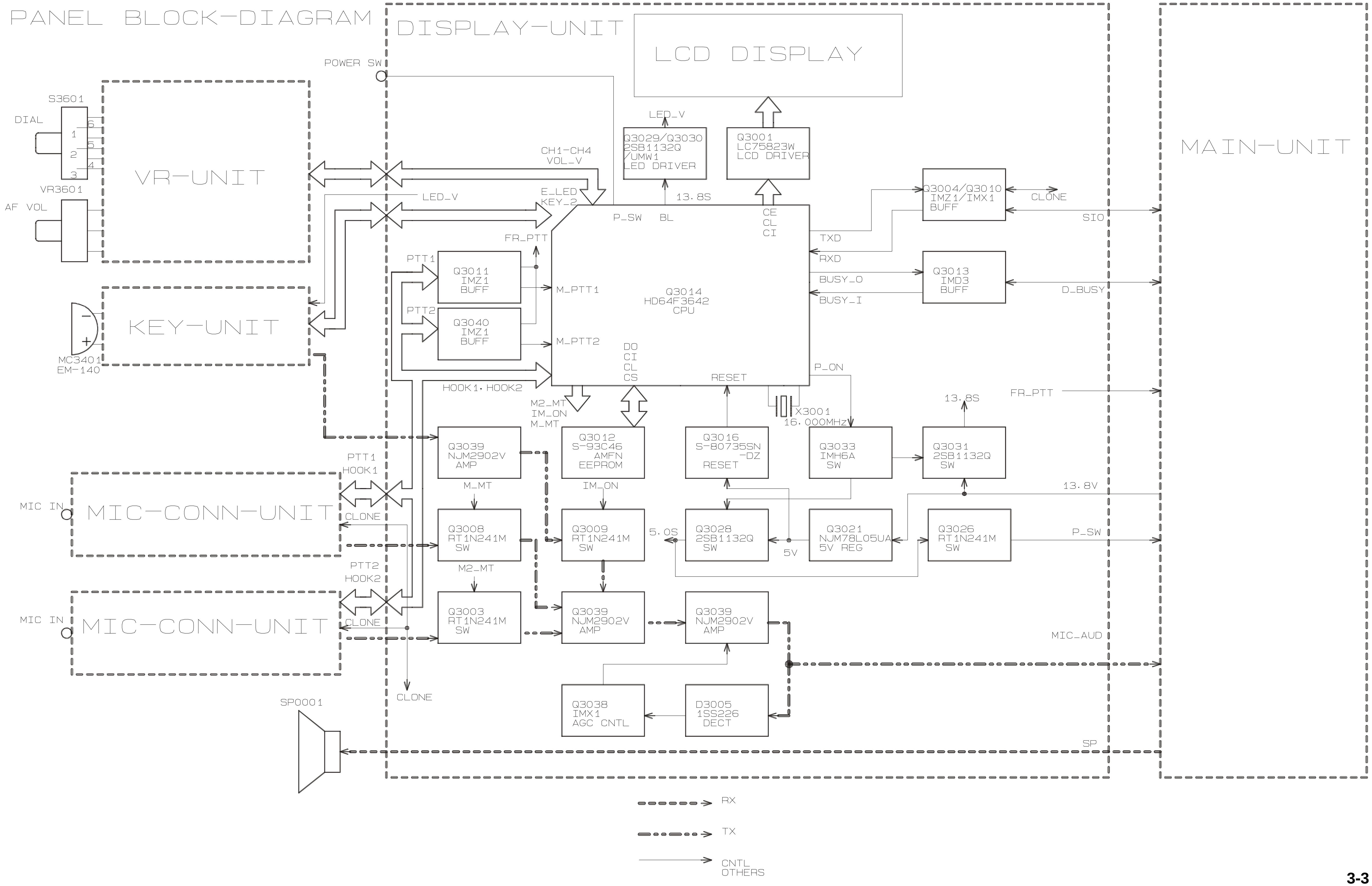
Accessories		
Description	VXSTD P/N	Qty.
BLADE FUSE ATC 15A	Q0000075	2
DC CABLE 02P 15AX2	T9021015	1
KNOB CAP	RA0254100	5
NAME PLATE	RA0254700	1



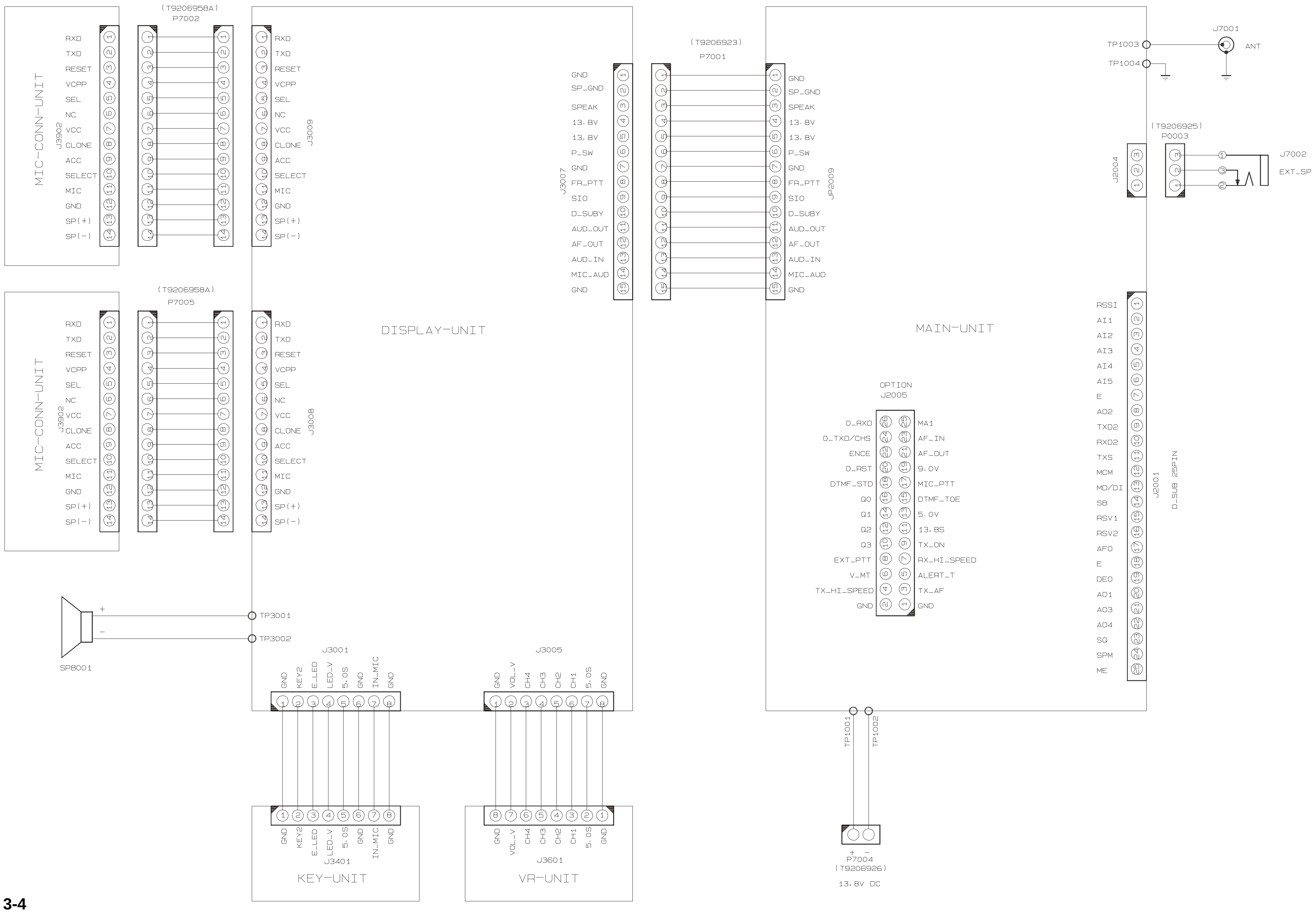
Non-designated parts are available only as part of a designated assembly.

Block Diagram




PANEL BLOCK-DIAGRAM
DISPLAY-UNIT
LCD DISPLAY
MAIN-UNIT
VR-UNIT
KEY-UNIT
MIC-CONN-UNIT
MIC-CONN-UNIT
POWER SW
S3601
DIAL
VR3601
AF VOL
MC3401
EM-140
MIC IN
MIC IN
SP0001
LED_V
Q3029/Q3030
2SB1132Q
/UMW1
LED DRIVER
Q3001
LC75823W
LCD DRIVER
CH1-CH4
VOL_V
LED_V
E_LED
KEY_2
13.8S
P_SW
BL
CE
CL
CI
Q3004/Q3010
IMZ1/IMX1
BUFF
CLONE
SIO
TXD
RXD
BUSY_O
BUSY_I
Q3013
IMD3
BUFF
D_BUSY
FR_PTT
PTT1
Q3011
IMZ1
BUFF
M_PTT1
Q3014
HD64F3642
CPU
PTT2
Q3040
IMZ1
BUFF
M_PTT2
DO
CI
CL
CS
RESET
P_ON
HOOK1, HOOK2
M2_MT
IM_ON
M_MT
X3001
16.000MHz
13.8S
FR_PTT
Q3039
NJM2902V
AMP
Q3012
S-93C46
AMFN
EEPROM
Q3016
S-80735SN
-DZ
RESET
Q3033
IMH6A
SW
Q3031
2SB1132Q
SW
PTT1
HOOK1
M_MT
IM_ON
13.8V
CLONE
Q3008
RT1N241M
SW
Q3009
RT1N241M
SW
5.0S
Q3028
2SB1132Q
SW
5V
Q3021
NJM78L05UA
5V REG
Q3026
RT1N241M
SW
P_SW
PTT2
HOOK2
M2_MT
CLONE
Q3003
RT1N241M
SW
Q3039
NJM2902V
AMP
Q3039
NJM2902V
AMP
MIC_AUD
CLONE
Q3038
IMX1
AGC CNTL
D3005
1SS226
DECT
SP
RX
TX
CNTL
OTHERS

Interconnection Diagram



Reception and transmission are switched by "RX" and "TX" lines from the microprocessor unit (MPU). The receiver uses double-conversion super-heterodyne circuitry, with a 43.95MHz 1st IF and 450 kHz 2nd IF. The 1st LO, produced by a PLL synthesizer, yields the 43.95MHz 1st IF.

The 2nd LO uses a 43.5 MHz (43.95 MHz-450 kHz) signal generated by a crystal oscillator. The 2nd mixer and other circuits use a custom IC to convert and amplify the 2nd IF, and detect FM to obtain demodulated signals. During transmit, the PLL synthesizer oscillates at the desired frequency directly, for amplification to obtain RF power output. During transmit, voice modulation and CTCSS (or DCS) modulation are applied to this synthesizer. Transceiver functions, such as Tx/Rx control, PLL synthesizer settings, and channel programming, are controlled using the MPU.

Receiver

Incoming RF signals from the antenna connector are delivered to the MAIN Unit, and pass through a low-pass filter (LPF) antenna switching network consisting of coils L1008, L1004, L1022 and L1003, capacitors C1338, C1337, C1336, C1335, and C1037, and antenna switching diodes D1047, D1048 and D1049 for delivery to the receiver front end.

Signals within the frequency range of the transceiver are then passed through a varactor-tuned band-pass filter consisting of L1007, L1020 before RF amplification by Q1018 (**2SC3357**).

The amplified RF is then band-pass filtered again by varactor-tuned resonators L1009, L1011 to ensure pure in-band input to 1st mixer Q1188, Q1189, Q1190, Q1191 (**2SK520 x 4**).

Buffered output from the VCO Unit is amplified by Q1032 (**2SC5107**), Q1192 (**2SC3357**) and low-pass filtered by L1041 / L1045/ L1060and C1153 / C1154 / C1174/C1089, to provide a pure 1st local signal between 177.95 and 217.95 MHz to the 1st mixer.

The 43.95MHz 1st mixer product then passes through dual monolithic crystal filters XF1001 and XF1002 (12 kHz BW)/ XF1003 and XF1004 (7kHz BW) and is amplified by Q1041 (**2SC4215Y**) and delivered to the input of the FM IF subsystem IC Q1034 (**TA31136FN**).

This IC contains the 2nd mixer, 2nd local oscillator, limiter amplifier, FM detector, noise amplifier, and squelch gates.

The 2nd LO in the IF-IC is produced from crystal OSC X1001 (14.500MHz), and the 1st IF is converted to 450kHz by the 2nd mixer and stripped of unwanted components by ceramic filter CF1001 or CF1002. After passing through a limiter amplifier, the signal is demodulated by the FM detector.

Demodulated receive audio from the IF-IC is amplified by Q2019 (**CXA1846N**). After volume adjustment by the AF power amplifier Q2018 (**TDA7240AV**), the audio signal is passed to the optional headphone jack or 4 W loudspeaker.

PLL synthesizer

The 1st LO maintains stability from the PLL synthesizer by using a 14.500 MHz reference signal from crystal OSC X1001. PLL synthesizer IC Q1033 (**SA7025DK**) consists of a prescaler, reference counter, swallow counter, programmable counter, a serial data input port to set these counters based on the external data, a phase comparator, and charge pump. The PLL-IC divides the 14.500 MHz reference signal by 725 using the reference counter (20.0 kHz comparison frequency). The phase detector comparison frequency to be eight times the channel spacing (2.5kHz). The VCO output is divided by the prescaler, swallow counter and programmable counter. These two signals are compared by the phase comparator and input to the charge pump. A voltage proportional to their phase difference is delivered to the low-pass filter circuit, then fed back to the VCO as a voltage with phase error, controlling and stabilizing the oscillating frequency. This synthesizer also operates as a modulator during transmit.

The RX-VCO is comprised of Q1019 (**2SK520**) and D1010, D1011, D1016, D1018 (**1SV282 x 4**), and oscillates between 177.950MHz and 217.950MHz according to the programmed receiving frequency. And the TX-VCO is comprised of Q1020 (**2SC4226-R24**) and D1014, D1015 (**1SV282 x 2**), D1020 (**1SV284**) and oscillates between 134.000MHz and 174.000MHz according to the programmed transmit frequency. The VCO output passes through buffer amplifier Q1026 (**2SC5107**), and a portion is fed to the buffer amplifier Q1029 (**2SC5107**) of the PLL IC, and at the same time amplified by Q1032 (**2SC5107**) to obtain stable output. The VCO DC supply is regulated by Q1006 (**2SC4154E**). Synthesizer output is fed to the 1st mixer by diode switch D1021 (**1SS321**) during receive, and to drive amplifier Q1031 (**2SC3356**) / Q1025 (**2SC3357**) for transmit.

Circuit Description

Transmitter

Voice audio from the microphone is delivered via the MIC (Jack) Unit to the MAIN Unit, after passing through amplifier Q3039/Q2040 (**NJM2902V**), pre-emphasis, limiter (IDC instantaneous deviation control), and LPF Q2001 (**NJM2902V**), is adjusted for optimum deviation level and delivered to the next stage.

Voice input from the microphone and CTCSS are FM-modulated to the VCO of the synthesizer, while DCS audio is modulated by the reference frequency oscillator of the synthesizer.

Synthesizer output, after passing through diode switch D1025 (**1SS321**), is amplified by driver Q1031 (**2SC3356**) / Q1025 (**2SC3357**) and power module Q1017 (**RA60H1317M**) to obtain full RF output. The RF energy then passes through antenna switch D2015 / D2016 and a low-pass filter circuit and finally to the antenna connector.

RF output power from the final amplifier is sampled by CM coupler and is rectified by D1037, D1038 (**HSM198S x 2**). The resulting DC is fed through Automatic Power Controller Q1007 (**NJM2904V**) to transmitter RF amplifier and thus the power output.

Generation of spurious products by the transmitter is minimized by the fundamental carrier frequency being equal to the final transmitting frequency, modulated directly in the transmit VCO. Additional harmonic suppression is provided by a low-pass filter consisting of L1008 L1004, L1002, L1001 and C1338, C1336, C1337, C1335, C1334, C1333, C1332 and C1326, resulting in more than 60 dB of harmonic suppression prior to delivery to the RF energy to the antenna.

DCS Demodulator

DCS signals are demodulated on the MAIN-UNIT, and are applied to low-pass filter Q2040 (**NJM2902V**), as well as the limiter comparator Q2003.

CTCSS encoder/decoder

The CTCSS code is generation and encoding by MPU IC Q2025 (**MB90F583B**).

Demodulation and detection of the CTCSS tones are carried out by IC Q2017 (**MX165C**).

MPU

Operation is controlled by 16-bit MPU IC Q2025 (**MB90F583B**). The system clock uses a 16.000 MHz crystal for a time base. IC Q2035 (**RN5V35AA**) resets the MPU when the power is on, and monitors the voltage of the regulated 5V power supply line.

EEPROM

The EEPROM retains TX and RX data for all memory channels and CTCSS data, DCS data, prescaler dividing, and REF oscillator data (internal/external).

The VX-5500 has been carefully aligned at the factory for the specified performance across the frequency range specified for each version.

Realignment should therefore not be necessary except in the event of a component failure, or when altering the transceiver version. If a sudden problem occurs during normal operation, it is likely due to component failure; realignment should not be done until after the faulty component has been replaced. All component replacement and service should be performed only by an authorized **VERTEX STANDARD** representative, or the warranty policy may be voided. Therefore, if a fault is suspected, contact the dealer from whom the transceiver was purchased for instructions regarding repair.

Authorized **VERTEX STANDARD** service technicians realign all circuits and make complete performance checks to ensure compliance with factory specifications after replacing any faulty components. Those who do undertake any of the following alignments are cautioned to proceed at their own risk. Problems caused by unauthorized attempts at realignment are not covered by the warranty policy. Also, **VERTEX STANDARD** must reserve the right to change circuits and alignment procedures in the interest of improved performance, without notifying owners.

Under no circumstances should any alignment be attempted unless the normal function and operation of the transceiver are clearly understood, the cause of the malfunction has been clearly pinpointed and any faulty components replaced, and the need for realignment determined to be absolutely necessary.

Required Test Equipment

The following test equipment (and thorough familiarity with its correct use) is necessary for complete realignment. Correction of problems caused by misalignment resulting from use of improper test equipment is not covered under the warranty policy.

While most steps do not require all of the equipment listed, the interactions of some adjustments may require that more complex adjustments be performed afterwards. Do not attempt to perform only a single step unless it is clearly isolated electrically from all other steps. Have all test equipment ready before beginning, and follow all of the steps in a section in the order presented.

- ❒ RF signal generator: calibrated output level at 1000 MHz
- ❒ Deviation Meter (linear detector)
- ❒ AF Millivoltmeter
- ❒ SINAD Meter
- ❒ Inline Wattmeter with 5% accuracy at 1000 MHz
- ❒ Regulated DC Power Supply: adjustable from 10 to 17 VDC, 15A
- ❒ 50-ohm non-reactive Dummy Load: 100 W at 1000 MHz
- ❒ Frequency Counter: <0.1 ppm accuracy at 1000 MHz
- ❒ AF Signal Generator
- ❒ DC Voltmeter: high impedance
- ❒ RF Sampling Coupler (attenuation pad)
- ❒ AF Dummy Load: 4 ohms, 20W
- ❒ Oscilloscope
- ❒ Spectrum Analyzer
- ❒ IBM PC-compatible computer w/VERTEX STADARD CT-71 programming cable and CE49 channel programming editor.

Alignment Preparation & Precautions

A dummy load and inline wattmeter must be connected to the main antenna jack in all procedures that call for transmission, except where specified otherwise. Correct alignment is not possible with an antenna. After completing one step, read the following step to determine whether the same test equipment will be required. If not, remove the test equipment (except dummy load and wattmeter, if connected) before proceeding.

Correct alignment requires that the ambient temperature be the same as that of the transceiver and test equipment, and that this temperature be held constant between 68° and 86°F (20° ~ 30°C). When the transceiver is brought into the shop from hot or cold air it should be allowed some time for thermal equalization with the environment before alignment. If possible, alignments should be made with oscillator shields and circuit boards firmly affixed in place. Also, the test equipment must be thoroughly warmed up before beginning.

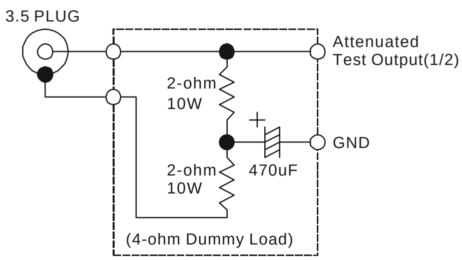
Alignment

Before beginning, connect the transceiver and PC using the CT-71 programming cable, and download the EEPROM data from the transceiver to the computer.

Store this data in a disk file so that it can be saved and retrieved later. Using the table below, program the channel, CTCSS, and DCS alignment settings for your transceiver version. Upload this file to the transceiver.

Note: Signal levels in dB referred to in this procedure are based on 0 dBμ = 0.5 μV (closed circuit).

Caution: Do not connect the audio output line to ground, and be certain that the speaker has adequate capability to handle the audio output from the radio.
Because of the bridge audio amplifier circuit used in the radio, it is necessary to construct and use a simple audio load test adapter as shown in the schematic diagram below, when conducting receiver alignment steps.



AF Test Adapter Schematic

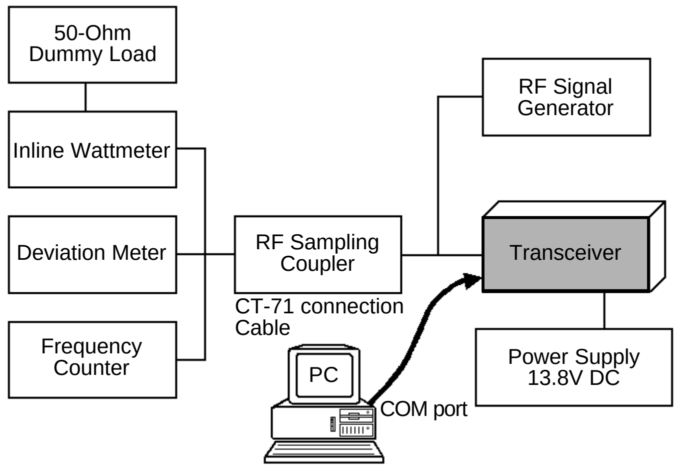
Alignment Channel Frequencies

Channel	Frequency (simplex)	CTCSS Encode	DCS Encode	Narrow/Wide
CH1	148.01 MHz	None	None	Wide
CH2	161.01 MHz	None	None	Wide
CH3	173.99 MHz	None	None	Wide
CH4	148.01 MHz	None	None	Narrow
CH5	161.01 MHz	None	None	Narrow
CH6	173.99 MHz	None	None	Narrow
CH7	161.01 MHz	151.4 Hz	None	Wide
CH8	161.01 MHz	None	023	Wide
CH9	161.01 MHz	151.4 Hz	None	Narrow
CH10	161.01 MHz	None	023	Narrow

PLL & Transmitter

Set up the test equipment as shown for transmitter alignment.

Maintain the supply voltage at 13.8 V DC for all steps.



PLL VCV

- ❒ Connect the positive lead of the DC voltmeter to test point **TP1008** (VCV) on the Main Unit, as indicated in the figure, and connect the negative lead to chassis ground.
- ❒ Set the transceiver to the high band edge frequency channel (CH3 or CH6), then key the transmitter, and adjust **L1026** on the Main Unit for 4.3 V ±0.1 V on the voltmeter.
- ❒ Adjust **L1023** on the Main Unit for 4.3 V ±0.1 V on the voltmeter.
- ❒ Next select to the low edge frequency channel (CH1 or CH4) and confirm the VCV is more than 1.0 V on the voltmeter.
- ❒ Key the transmitter, and confirm the VCV is more than 1.0 V on the voltmeter.

PLL Reference Frequency

With the wattmeter, dummy load and frequency counter connected to the antenna jack, and select band center frequency channel (CH2 or CH5), key the transmitter and adjust **VR1001** on the Main Unit, if necessary, so the counter frequency is within 100 Hz of the channel center frequency for the transceiver version.

Transmitter Output Power

The following transmitter parameters can be adjusted from the computer by utilizing the Alignment Software. Refer to the onboard help of the Alignment Software Manual for details.

❒ Select the band center frequency channel (CH2 or CH5), and select the "high" power output level. Key the transmitter and adjust "TX PWR Hi" for a power output of 50 Watts (± 1.0 W) as indicated on the wattmeter.

❒ Stay on the band center frequency channel (CH2 or CH5), and select the "low" power output level. Key the transmitter and adjust "TX PWR L3" for a power level of 25 Watts (± 0.5 W) as indicated on the wattmeter.

Transmitter Deviation

The following modulation parameters can be adjusted from the computer by utilizing the Alignment Software. Refer to the onboard help of the Alignment Software Manual for details.

Microphone Audio Modulation Level

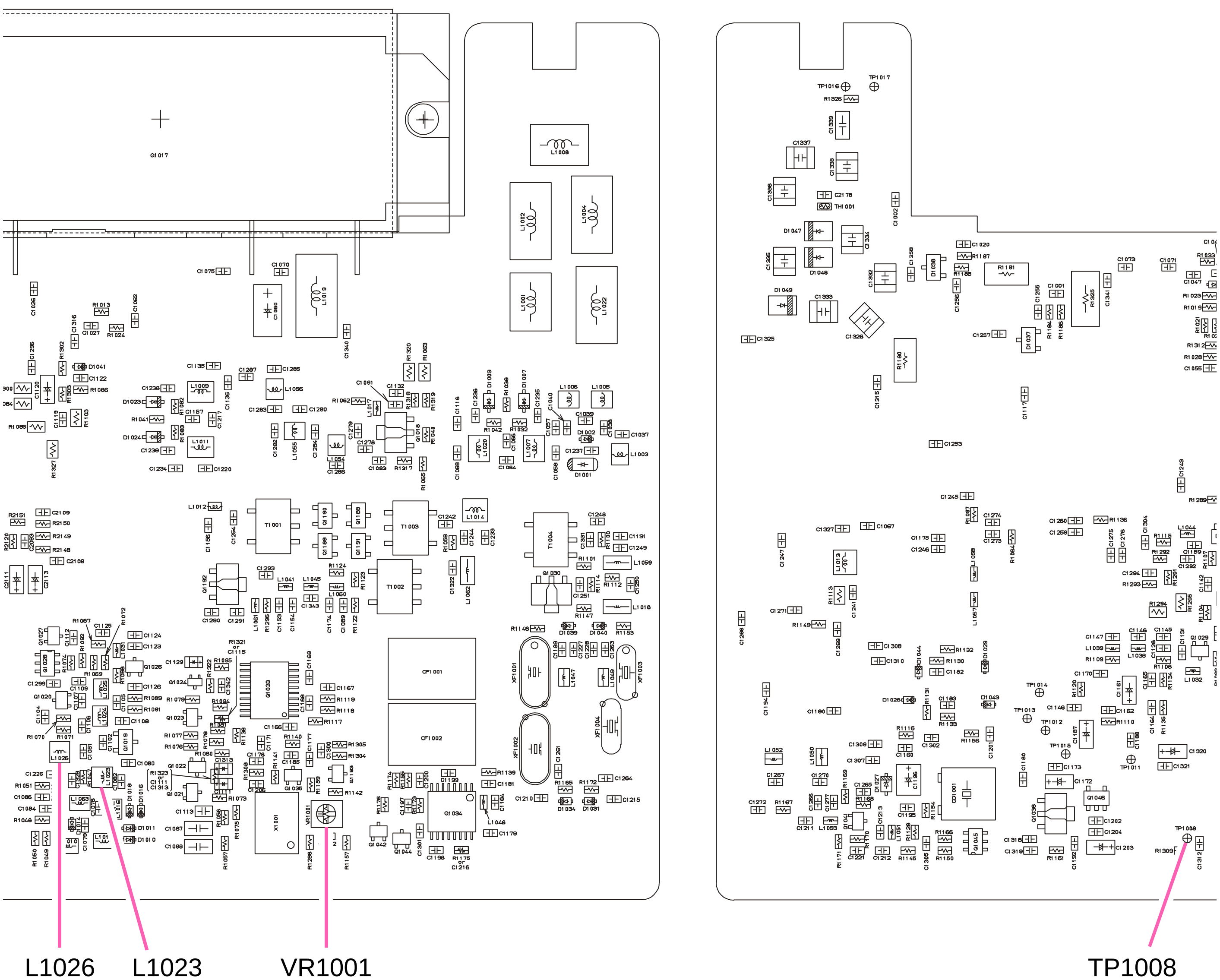
❒ Select the band center frequency channel (CH2), and select the "low" power output level.

❒ Adjust the AF generator for 50mV (–30dBm) output at 1 kHz, as applied to the microphone jack.

❒ Key the transmitter and adjust "MAX Dev (wide)" for maximum deviation of 4.3 kHz ± 0.1 kHz as indicated on the deviation meter.

❒ Select the band center frequency channel (CH5), and select the "low" power output level.

❒ Adjustdjust the AF generator for 50mV (–30dBm) output at 1 kHz, as applied to the microphone jack.



❒ Key the transmitter and adjust "MAX Dev (Narrow)" for maximum deviation of 2.2 kHz ± 0.2 kHz as indicated on the deviation meter.

CTCSS Modulation Level

❒ Select the "low" power output level.

❒ Select the band center frequency channel (CH7), with 151.4 Hz CTCSS encode, and reduce the AF generator injection to zero.

❒ Key the transmitter and adjust "CTCSS Dev (wide)" for CTCSS deviation of 0.9 kHz ± 0.1 kHz as indicated on the deviation meter.

❒ Select the band center frequency channel (CH9), with 151.4 Hz CTCSS encode, and reduce the AF generator injection to zero.

❒ Key the transmitter and adjust "CTCSS Dev (Narrow)" for CTCSS deviation of 0.45 kHz ± 0.1 kHz as indicated on the deviation meter.

DCS Modulation Level

❒ Select the "low" power output level.

❒ Select the band center frequency channel (CH8), with 023 DCS code, and reduce the AF generator injection to zero.

❒ Key the transmitter and adjust "DCS Dev (wide)" for DCS deviation of 0.8 kHz ± 0.1 kHz as indicated on the deviation meter.

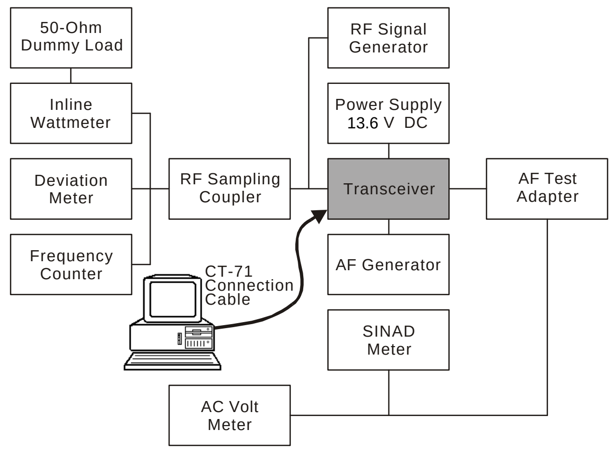
❒ Select the band center frequency channel (CH10), with 023 DCS code, and reduce the AF generator injection to zero.

❒ Key the transmitter and adjust "DCS Dev (Narrow)" for CTCSS deviation of 0.4 kHz ± 0.1 kHz as indicated on the deviation meter.

Receiver

The sensitivity parameters can be adjusted from the computer by utilizing the Alignment Software. Refer to the onboard help of the Alignment Software Manual for details.

❒ Set up the test equipment as shown for receiver alignment, and install the audio test adapter.



❒ With the transceiver set to the band center frequency channel (CH2), and with the RF signal generator tuned to the same frequency, set the generator for ±3.0 kHz deviation with 1 kHz tone modulation, and set the output level for –5.0 dBµ at the antenna jack.

❒ Adjust "Rx TUNE" the receiver front-end tuning for optimum SINAD, reducing signal generator output level as necessary for proper meter deflection.

❒ After the previous step, the final signal generator level should be less than –5.0 dBµ for 12dB SINAD.

Squelch Threshold

The squelch parameters can also be adjusted from the computer by utilizing the Alignment Software. Refer to the onboard help of the Alignment Software Manual for details.

Tight SQL RSSI LEVEL (Wide)

- ❒ Select the band center frequency channel (CH2), and with the RF signal generator turned to the same frequency, set the generator for ±3.0 kHz deviation with 1 kHz tone modulation, and set the output level for 3.0 dBμ at the antenna jack.

Threshold NSQ LEVEL (Wide)

- ❒ Select the band center frequency channel (CH2), and with the RF signal generator turned to the same frequency, set the generator for ±3.0 kHz deviation with 1 kHz tone modulation, and set the output level for –8.0 dBμ at the antenna jack.

Tight SQL NSQ LEVEL (Wide)

- ❒ Select the band center frequency channel (CH2), and with the RF signal generator turned to the same frequency, set the generator for ±3.0 kHz deviation with 1 kHz tone modulation, and set the output level for 0 dBμ at the antenna jack.

Tight SQL RSSI LEVEL (Narrow)

- ❒ Select the band center frequency channel (CH5), and with the RF signal generator turned to the same frequency, set the generator for ±1.5 kHz deviation with 1 kHz tone modulation, and set the output level for 3.0 dBμ at the antenna jack.

Threshold NSQ LEVEL (Narrow)

- ❒ Select the band center frequency channel (CH5), and with the RF signal generator turned to the same frequency, set the generator for ±1.5 kHz deviation with 1 kHz tone modulation, and set the output level for –8.0 dBμ at the antenna jack.

Tight SQL NSQ LEVEL (Narrow)

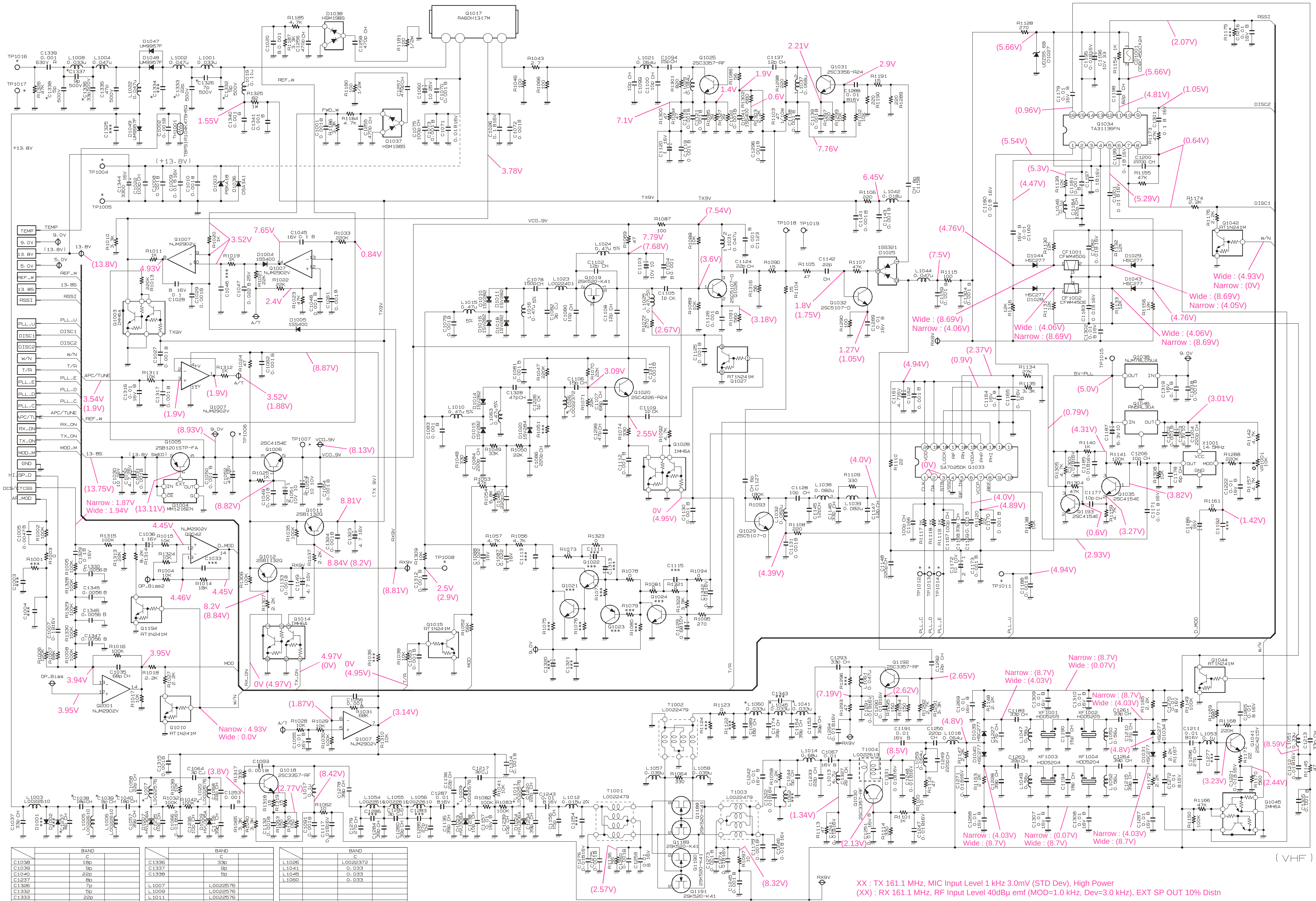
- ❒ Select the band center frequency channel (CH5), and with the RF signal generator turned to the same frequency, set the generator for ±1.5 kHz deviation with 1 kHz tone modulation, and set the output level for 0 dBμ at the antenna jack.
- ❒ Adjust the squelch threshold level "Tight SQL NSQ(Narrow)" such that the squelch just open at this signal input level (the BUSY LED will turn on).

Alignment

Note:

MAIN Unit

Circuit Diagram



	BAND		
		C	
C1038		18p	
C1039		9p	
C1040		22p	
C1237		8p	
C1326		7p	
C1332		5p	
C1333		22p	
C1334		NC	

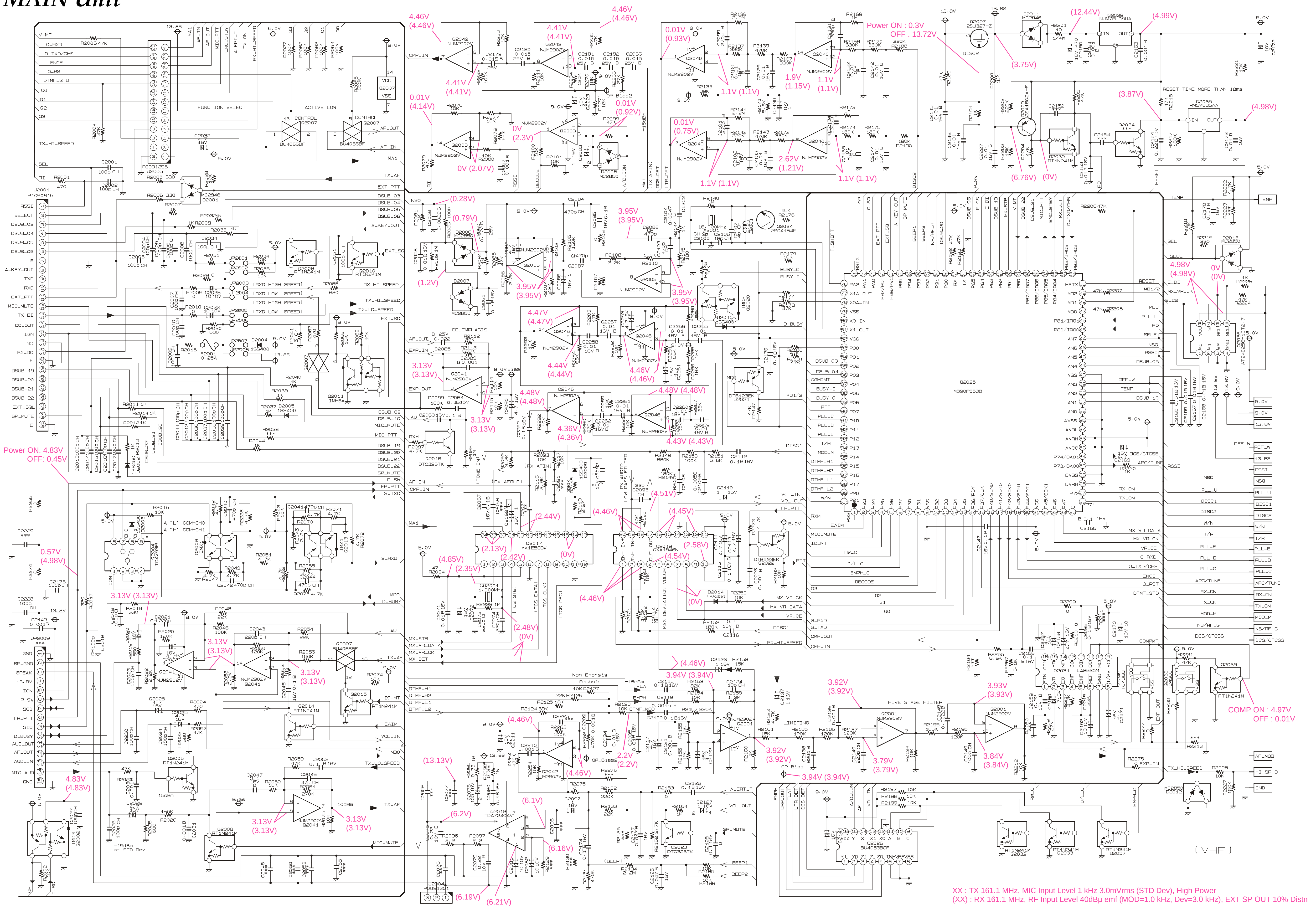
	BAND		
		C	
C1336		33p	
C1337		9p	
C1338		5p	
L1007		L0022576	
L1009		L0022576	
L1011		L0022576	
L1020		L0022576	

	BAND		
		C	
L1026		L0022372	
L1041		0.033	
L1045		0.033	
L1060		0.033	

XX : TX 161.1 MHz, MIC Input Level 1 kHz 3.0mV (STD Dev), High Power

(XX) : RX 161.1 MHz, RF Input Level 40dBμ emf (MOD=1.0 kHz, Dev=3.0 kHz), EXT SP OUT 10% Distn

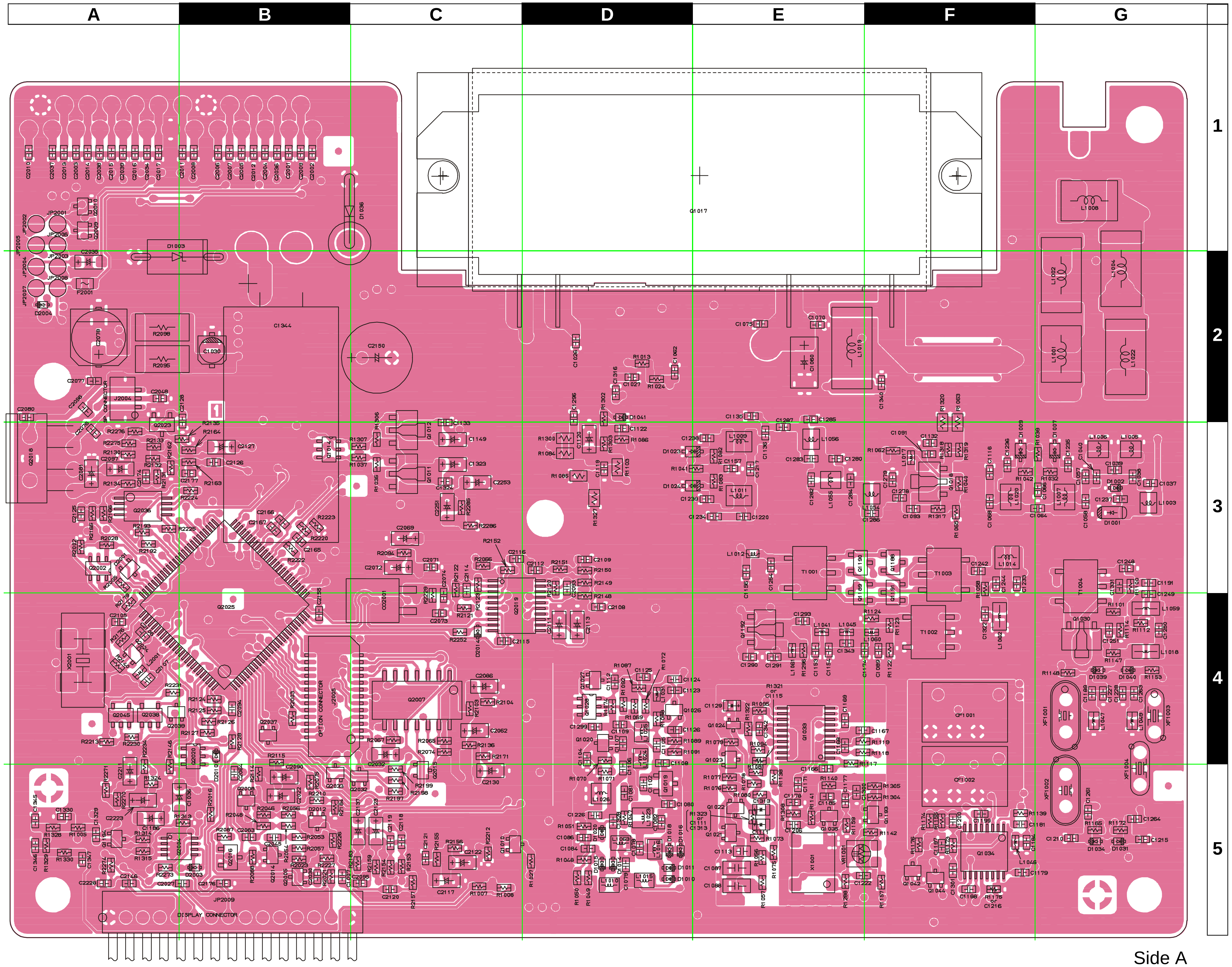
MAIN Unit



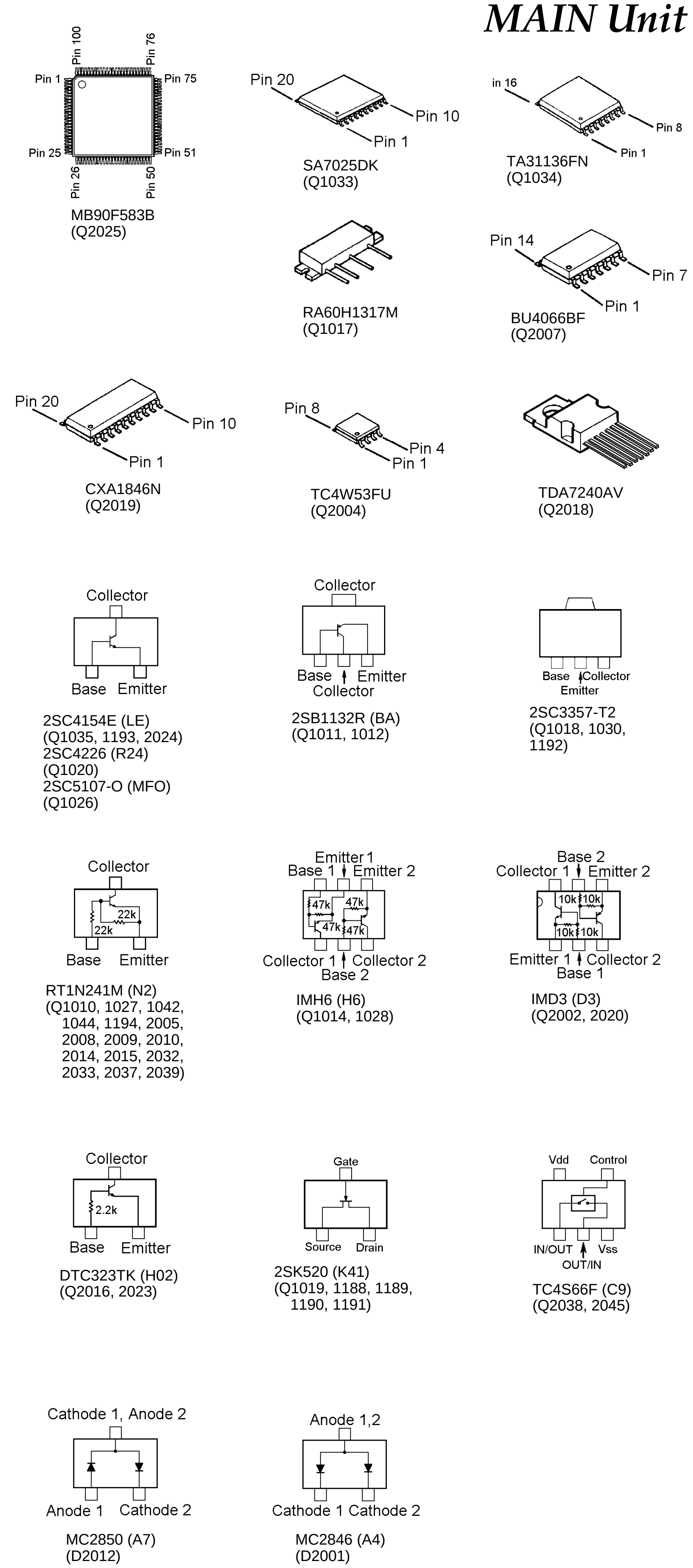
Q2031			
1	2.53V	9	-
2	0.71V	10	-
3	2.53V	11	-
4	-	12	2.51V
5	-	13	2.52V
6	2.53V	14	2.53V
7	-	15	0.6V
8	2.52V	16	2.52V

XX : TX 161.1 MHz, MIC Input Level 1 kHz 3.0mVrms (STD Dev), High Power
(XX) : RX 161.1 MHz, RF Input Level 40dBμ emf (MOD=1.0 kHz, Dev=3.0 kHz), EXT SP OUT 10% Distn

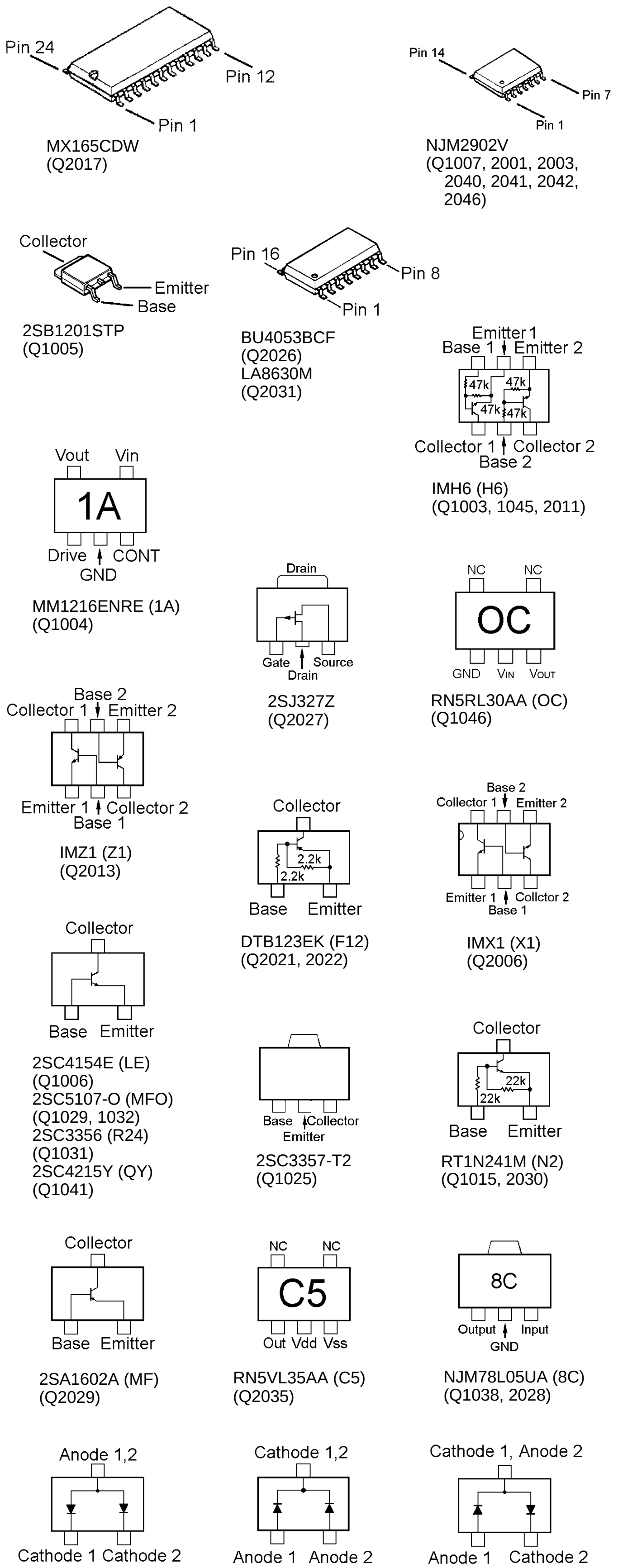
Parts Layout



Side A



MAIN Unit



MX165CDW (Q2017)

NJM2902V (Q1007, 2001, 2003, 2040, 2041, 2042, 2046)

2SB1201STP (Q1005)

BU4053BCF (Q2026) LA8630M (Q2031)

IMH6 (H6) (Q1003, 1045, 2011)

MM1216ENRE (1A) (Q1004)

2SJ327Z (Q2027)

RN5RL30AA (OC) (Q1046)

IMZ1 (Z1) (Q2013)

DTB123EK (F12) (Q2021, 2022)

IMX1 (X1) (Q2006)

2SC4154E (LE) (Q1006)
2SC5107-O (MFO) (Q1029, 1032)
2SC3356 (R24) (Q1031)
2SC4215Y (QY) (Q1041)

2SC3357-T2 (Q1025)

RT1N241M (N2) (Q1015, 2030)

2SA1602A (MF) (Q2029)

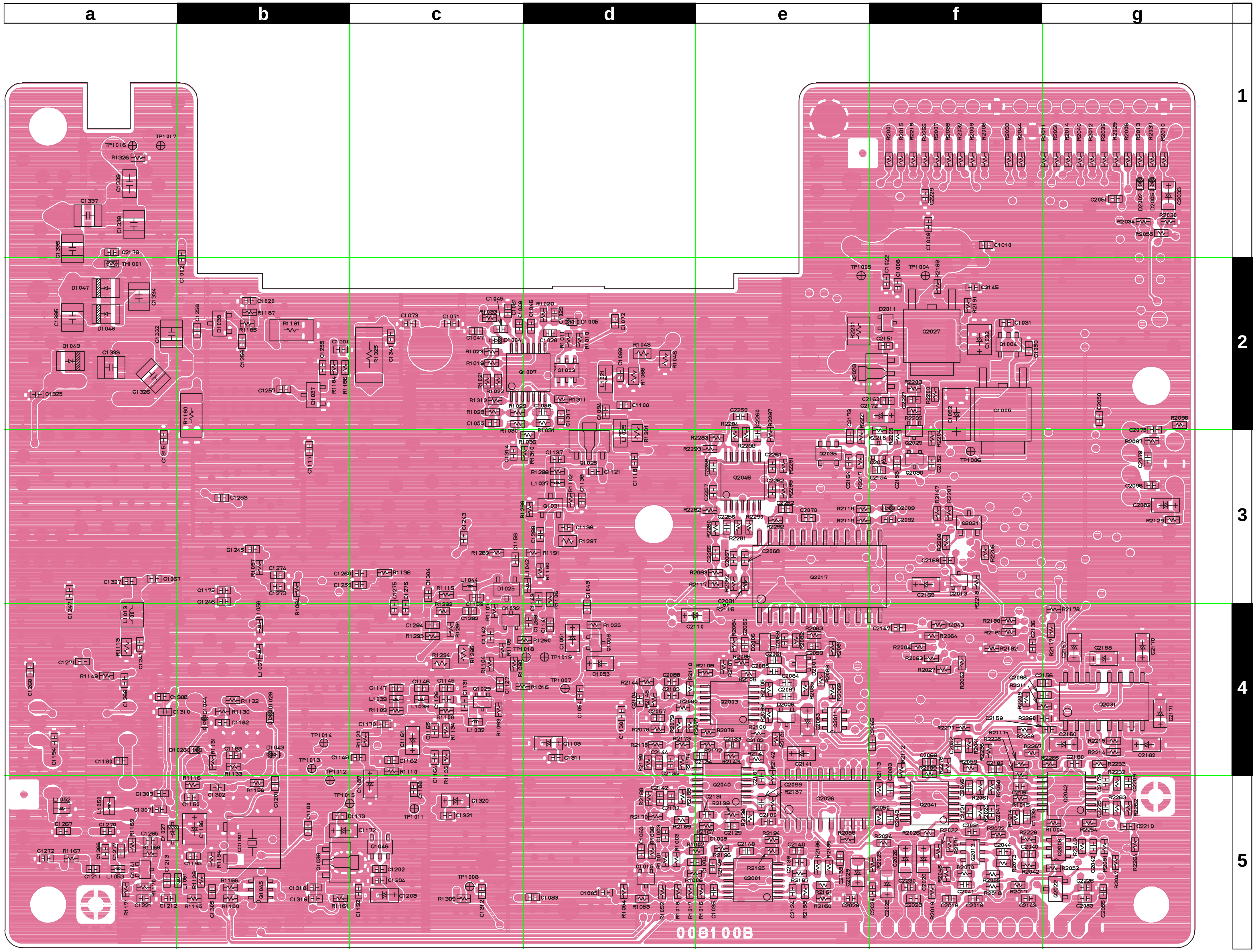
RN5VL35AA (C5) (Q2035)

NJM78L05UA (8C) (Q1038, 2028)

MC2846 (D2011)

1SS321 (F9) (D1025)

MC2850 (A7) (D2006, 2007, 2008, 2013)
HSM198S (C6) (D1037, 1038)



Side B

Parts List

REF.	DESCRIPTION	VALUE	WV	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT.	SIDE.	LAY ADR.
					*** MAIN UNIT ***					
	PCB with Components					CB1977001				
	Printed Circuit Board					FR006760C		1-		
C 1001	CHIP CAP.	0.001uF	50V	B	GRM39B102K50PT	K22174821		1-	B	b2
C 1002	CHIP CAP.	0.001uF	50V	B	GRM39B102K50PT	K22174821		1-	B	b2
C 1005	CHIP CAP.	0.0047uF	50V	B	GRM39B472K50PT	K22174833		1-	B	e5
C 1007	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	A	B5
C 1008	CHIP CAP.	0.001uF	50V	B	GRM39B102K50PT	K22174821		1-	B	f2
C 1009	CHIP CAP.	0.01uF	16V	B	ECUV1C103KBV	K22129510		1-	B	f1
C 1010	CHIP CAP.	0.001uF	50V	B	GRM39B102K50PT	K22174821		1-	B	f1
C 1020	CHIP CAP.	0.001uF	50V	B	GRM39B102K50PT	K22174821		1-	B	b2
C 1022	CHIP CAP.	100pF	50V	CH	GRM39CH101J50PT	K22174235		1-	B	f2
C 1026	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	A	D2
C 1027	CHIP CAP.	0.001uF	50V	B	GRM39B102K50PT	K22174821		1-	A	D2
C 1028	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	B	d2
C 1029	CHIP CAP.	0.001uF	50V	B	GRM39B102K50PT	K22174821		1-	B	d2
C 1030	AL.ELECTRO.CAP.	10uF	16V		RV2-16V100MB55-R	K48120014		1-	A	B2
C 1031	CHIP CAP.	0.001uF	50V	B	GRM39B102K50PT	K22174821		1-	B	f2
C 1032	CHIP TA.CAP.	4.7uF	25V		TEMSVB21E475M-8R	K78140019		1-	B	f2
C 1035	CHIP CAP.	68pF	50V	CH	GRM39CH680J50PT	K22174231		1-	B	e5
C 1036	CHIP TA.CAP.	1uF	16V		TESVA1C105M1-8R	K78120009		1-	A	A5
C 1037	CHIP CAP.	33pF	50V	CH	GRM39CH330J50PT	K22174223		1-	A	G3
C 1038	CHIP CAP.	18pF	50V	CH	GRM39CH180J50PT	K22174217		1-	A	G3
C 1039	CHIP CAP.	9pF	50V	CH	GRM39CH090D50PT	K22174210		1-	A	G3
C 1040	CHIP CAP.	18pF	50V	CH	GRM39CH180J50PT	K22174217		1-	A	G3
C 1045	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	B	c2
C 1047	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	B	c2
C 1048	CHIP CAP.	0.001uF	50V	B	GRM39B102K50PT	K22174821		1-	B	c2
C 1049	CHIP CAP.	0.001uF	50V	B	GRM39B102K50PT	K22174821		1-	B	d4
C 1050	CHIP CAP.	0.001uF	50V	B	GRM39B102K50PT	K22174821		1-	B	f2
C 1051	CHIP TA.CAP.	10uF	10V		TEMSVA1A106M-8R	K78100028		1-	B	d4
C 1052	CHIP TA.CAP.	47uF	16V		TEMSVC1C476M12R	K78120057		1-	B	f2
C 1053	CHIP TA.CAP.	10uF	10V		TEMSVA1A106M-8R	K78100028		1-	B	d4
C 1054	CHIP CAP.	0.001uF	50V	B	GRM39B102K50PT	K22174821		1-	B	d4
C 1055	CHIP CAP.	0.01uF	16V	B	ECUV1C103KBV	K22129510		1-	B	c2
C 1056	CHIP CAP.	0.001uF	50V	B	GRM39B102K50PT	K22174821		1-	B	d2
C 1057	CHIP CAP.	39pF	50V	CH	GRM39CH390J50PT	K22174225		1-	A	G3
C 1058	CHIP CAP.	22pF	50V	CH	GRM39CH220J50PT	K22174219		1-	A	G3
C 1060	CHIP TA.CAP.	10uF	25V		TEMSVC1E106M12R	K78140021		1-	A	E2
C 1061	CHIP CAP.	0.001uF	50V	B	GRM39B102K50PT	K22174821		1-	B	c2
C 1062	CHIP CAP.	0.001uF	50V	B	GRM39B102K50PT	K22174821		1-	A	D2
C 1063	CHIP CAP.	0.001uF	50V	B	GRM39B102K50PT	K22174821		1-	B	d5
C 1064	CHIP CAP.	3pF	50V	CJ	GRM39CJ030C50PT	K22174204		1-	A	G3
C 1066	CHIP CAP.	0.01uF	16V	B	ECUV1C103KBV	K22129510		1-	A	G3
C 1067	CHIP CAP.	0.01uF	16V	B	ECUV1C103KBV	K22129510		1-	B	a3
C 1068	CHIP CAP.	22pF	50V	CH	GRM39CH220J50PT	K22174219		1-	A	F3
C 1070	CHIP CAP.	0.001uF	50V	B	GRM39B102K50PT	K22174821		1-	A	E2
C 1071	CHIP CAP.	0.01uF	16V	B	ECUV1C103KBV	K22129510		1-	B	c2
C 1072	CHIP CAP.	0.001uF	50V	B	GRM39B102K50PT	K22174821		1-	B	d2
C 1073	CHIP CAP.	0.001uF	50V	B	GRM39B102K50PT	K22174821		1-	B	c2
C 1075	CHIP CAP.	100pF	50V	CH	GRM39CH101J50PT	K22174235		1-	A	E2
C 1078	CHIP CAP.	150pF	50V	CH	GRM39CH151J50PT	K22174239		1-	A	D5
C 1079	CHIP CAP.	0.001uF	50V	B	GRM39B102K50PT	K22174821		1-	A	D5
C 1080	CHIP CAP.	10pF	50V	CH	GRM39CH100D50PT	K22174211		1-	A	D5
C 1081	CHIP CAP.	0.001uF	50V	B	GRM39B102K50PT	K22174821		1-	A	D5
C 1082	CHIP CAP.	3pF	50V	CJ	GRM39CJ030C50PT	K22174204		1-	A	D5
C 1083	CHIP CAP.	0.001uF	50V	B	GRM39B102K50PT	K22174821		1-	B	d5
C 1084	CHIP CAP.	220pF	50V	CH	GRM39CH221J50PT	K22174243		1-	A	D5
C 1085	CHIP CAP.	220pF	50V	CH	GRM39CH221J50PT	K22174243		1-	B	d5
C 1086	CHIP CAP.	220pF	50V	CH	GRM39CH221J50PT	K22174243		1-	A	D5

REF.	DESCRIPTION	VALUE	WV	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT.	SIDE.	LAY ADR.
C 1087	FILM CAP.	0.022uF	16V		ECHU1C223JB5	K57120011		1-	A	E5
C 1088	FILM CAP.	0.022uF	16V		ECHU1C223JB5	K57120011		1-	A	E5
C 1089	CHIP CAP.	18pF	50V	CH	GRM39CH180J50PT	K22174217		1-	A	F4
C 1091	CHIP CAP.	0.001uF	50V	B	GRM39B102K50PT	K22174821		1-	A	F3
C 1093	CHIP CAP.	0.001uF	50V	B	GRM39B102K50PT	K22174821		1-	A	F3
C 1094	CHIP CAP.	15pF	50V	CH	GRM39CH150J50PT	K22174215		1-	B	d2
C 1099	CHIP CAP.	10pF	50V	CH	GRM39CH100D50PT	K22174211		1-	B	d2
C 1100	CHIP CAP.	10pF	50V	CH	GRM39CH100D50PT	K22174211		1-	B	d2
C 1102	CHIP CAP.	12pF	50V	CH	GRM39CH120J50PT	K22174213		1-	A	D5
C 1103	CHIP TA.CAP.	10uF	10V		TEMSVA1A106M-8R	K78100028		1-	B	d4
C 1104	CHIP CAP.	0.001uF	50V	B	GRM39B102K50PT	K22174821		1-	A	D4
C 1105	CHIP CAP.	1pF	50V	CK	GRM39CK010C50PT	K22174202		1-	A	D4
C 1106	CHIP CAP.	15pF	50V	CH	GRM39CH150J50PT	K22174215		1-	A	D5
C 1107	CHIP CAP.	68pF	50V	CH	GRM39CH680J50PT	K22174231		1-	A	D4
C 1108	CHIP CAP.	12pF	50V	CH	GRM39CH120J50PT	K22174213		1-	A	D4
C 1109	CHIP CAP.	1pF	50V	CK	GRM39CK010C50PT	K22174202		1-	A	D4
C 1112	CHIP CAP.	0.001uF	50V	B	GRM39B102K50PT	K22174821		1-	A	D4
C 1116	CHIP CAP.	39pF	50V	CH	GRM39CH390J50PT	K22174225		1-	A	F3
C 1117	CHIP CAP.	0.01uF	16V	B	ECUV1C103KBV	K22129510		1-	B	b3
C 1118	CHIP CAP.	0.001uF	50V	B	GRM39B102K50PT	K22174821		1-	B	d3
C 1119	CHIP CAP.	0.001uF	50V	B	GRM39B102K50PT	K22174821		1-	A	D3
C 1120	CHIP TA.CAP.	1uF	16V		TESVA1C105M1-8R	K78120009		1-	A	D3
C 1121	CHIP CAP.	0.001uF	50V	B	GRM39B102K50PT	K22174821		1-	B	d3
C 1122	CHIP CAP.	0.001uF	50V	B	GRM39B102K50PT	K22174821		1-	A	D3
C 1123	CHIP CAP.	0.001uF	50V	B	GRM39B102K50PT	K22174821		1-	A	D4
C 1124	CHIP CAP.	22pF	50V	CH	GRM39CH220J50PT	K22174219		1-	A	D4
C 1125	CHIP CAP.	0.001uF	50V	B	GRM39B102K50PT	K22174821		1-	A	D4
C 1126	CHIP CAP.	0.001uF	50V	B	GRM39B102K50PT	K22174821		1-	A	D4
C 1127	CHIP CAP.	6pF	50V	CH	GRM39CH060D50PT	K22174207		1-	B	c4
C 1128	CHIP CAP.	10pF	50V	CH	GRM39CH100D50PT	K22174211		1-	B	c4
C 1129	CHIP TA.CAP.	0.68uF	10V		TESVSP1A684M-8R	K78100025		1-	A	E4
C 1130	CHIP CAP.	0.001uF	50V	B	GRM39B102K50PT	K22174821		1-	B	d4
C 1131	CHIP CAP.	0.001uF	50V	B	GRM39B102K50PT	K22174821		1-	B	c4
C 1132	CHIP CAP.	0.001uF	50V	B	GRM39B102K50PT	K22174821		1-	A	F3
C 1133	CHIP CAP.	0.001uF	50V	B	GRM39B102K50PT	K22174821		1-	A	C2
C 1135	CHIP CAP.	39pF	50V	CH	GRM39CH390J50PT	K22174225		1-	A	E2
C 1136	CHIP CAP.	22pF	50V	CH	GRM39CH220J50PT	K22174219		1-	A	E3
C 1137	CHIP CAP.	12pF	50V	CH	GRM39CH120J50PT	K22174213		1-	B	d3
C 1138	CHIP CAP.	0.001uF	50V	B	GRM39B102K50PT	K22174821		1-	B	d3
C 1139	CHIP CAP.	0.001uF	50V	B	GRM39B102K50PT	K22174821		1-	B	d3
C 1141	CHIP CAP.	0.001uF	50V	B	GRM39B102K50PT	K22174821		1-	B	d4
C 1142	CHIP CAP.	22pF	50V	CH	GRM39CH220J50PT	K22174219		1-	B	c4
C 1143	CHIP CAP.	0.001uF	50V	B	GRM39B102K50PT	K22174821		1-	B	d3
C 1145	CHIP CAP.	12pF	50V	CH	GRM39CH120J50PT	K22174213		1-	B	c4
C 1146	CHIP CAP.	33pF	50V	CH	GRM39CH330J50PT	K22174223		1-	B	c4
C 1147	CHIP CAP.	12pF	50V	CH	GRM39CH120J50PT	K22174213		1-	B	c4
C 1148	CHIP CAP.	220pF	50V	CH	GRM39CH221J50PT	K22174243		1-	B	c4
C 1149	CHIP TA.CAP.	4.7uF	16V		TEMSVA1C475M-8R	K78120031		1-	A	C3
C 1153	CHIP CAP.	39pF	50V	CH	GRM39CH390J50PT	K22174225		1-	A	E4
C 1154	CHIP CAP.	39pF	50V	CH	GRM39CH390J50PT	K22174225		1-	A	E4
C 1156	CHIP CAP.	15pF	50V	CH	GRM39CH150J50PT	K22174215		1-	A	E3
C 1157	CHIP CAP.	0.01uF	16V	B	ECUV1C103KBV	K22129510		1-	A	E3
C 1158	CHIP CAP.	8pF	50V	CH	GRM39CH080D50PT	K22174209		1-	B	c3
C 1159	CHIP CAP.	0.001uF	50V	B	GRM39B102K50PT	K22174821		1-	B	c3
C 1160	CHIP CAP.	0.01uF	16V	B	ECUV1C103KBV	K22129510		1-	B	b5
C 1161	CHIP TA.CAP.	4.7uF	16V		TEMSVA1C475M-8R	K78120031		1-	B	c4
C 1162	CHIP CAP.	0.001uF	50V	B	GRM39B102K50PT	K22174821		1-	B	c4
C 1164	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	B	c4
C 1165	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	B	c4
C 1166	CHIP CAP.	100pF	50V	CH	GRM39CH101J50PT	K22174235		1-	A	E5

REF.	DESCRIPTION	VALUE	WV	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT.	SIDE.	LAY ADR.
C 1167	CHIP CAP.	100pF	50V	CH	GRM39CH101J50PT	K22174235		1-	A	E4
C 1168	CHIP CAP.	33pF	50V	CH	GRM39CH330J50PT	K22174223		1-	A	E4
C 1169	CHIP CAP.	0.001uF	50V	B	GRM39B102K50PT	K22174821		1-	A	E4
C 1170	CHIP CAP.	0.001uF	50V	B	GRM39B102K50PT	K22174821		1-	B	c4
C 1171	CHIP CAP.	0.01uF	16V	B	ECUV1C103KBV	K22129510		1-	A	E5
C 1172	CHIP TA.CAP.	10uF	10V		TEMSVA1A106M-8R	K78100028		1-	B	b5
C 1173	CHIP CAP.	0.001uF	50V	B	GRM39B102K50PT	K22174821		1-	B	b5
C 1174	CHIP CAP.	39pF	50V	CH	GRM39CH390J50PT	K22174225		1-	A	E4
C 1175	CHIP CAP.	0.001uF	50V	B	GRM39B102K50PT	K22174821		1-	B	b3
C 1177	CHIP CAP.	10pF	50V	CH	GRM39CH100D50PT	K22174211		1-	A	E5
C 1178	CHIP CAP.	6pF	50V	CH	GRM39CH060D50PT	K22174207		1-	A	E5
C 1179	CHIP CAP.	0.01uF	16V	B	ECUV1C103KBV	K22129510		1-	A	F5
C 1180	CHIP CAP.	0.01uF	16V	B	ECUV1C103KBV	K22129510		1-	B	b5
C 1181	CHIP CAP.	0.001uF	50V	B	GRM39B102K50PT	K22174821		1-	A	F5
C 1182	CHIP CAP.	0.01uF	16V	B	ECUV1C103KBV	K22129510		1-	B	b4
C 1183	CHIP CAP.	0.01uF	16V	B	ECUV1C103KBV	K22129510		1-	B	b4
C 1184	CHIP CAP.	120pF	50V	CH	GRM39CH121J50PT	K22174237		1-	A	F5
C 1185	CHIP CAP.	0.01uF	16V	B	ECUV1C103KBV	K22129510		1-	A	E5
C 1186	CHIP TA.CAP.	4.7uF	16V		TEMSVA1C475M-8R	K78120031		1-	A	A5
C 1187	CHIP TA.CAP.	10uF	6.3V		TEMSVA0J106M-8R	K78080027		1-	B	c5
C 1188	CHIP CAP.	0.001uF	50V	B	GRM39B102K50PT	K22174821		1-	B	c5
C 1189	CHIP CAP.	33pF	50V	CH	GRM39CH330J50PT	K22174223		1-	A	G4
C 1190	CHIP CAP.	15pF	50V	CH	GRM39CH150J50PT	K22174215		1-	B	a4
C 1191	CHIP CAP.	0.01uF	16V	B	ECUV1C103KBV	K22129510		1-	A	G3
C 1194	CHIP CAP.	18pF	50V	CH	GRM39CH180J50PT	K22174217		1-	B	a4
C 1195	CHIP CAP.	0.01uF	16V	B	ECUV1C103KBV	K22129510		1-	B	b5
C 1196	CHIP TA.CAP.	33uF	10V		TEMSVB21A336M-8R	K78100047		1-	B	b5
C 1197	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	A	F5
C 1198	CHIP CAP.	82pF	50V	CH	GRM39CH820J50PT	K22174233		1-	A	F5
C 1199	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	A	F5
C 1200	CHIP CAP.	220pF	50V	CH	GRM39CH221J50PT	K22174243		1-	A	F5
C 1201	CHIP CAP.	0.01uF	16V	B	ECUV1C103KBV	K22129510		1-	B	b5
C 1202	CHIP CAP.	0.001uF	50V	B	GRM39B102K50PT	K22174821		1-	B	c5
C 1203	CHIP TA.CAP.	10uF	6.3V		TEMSVA0J106M-8R	K78080027		1-	B	c5
C 1204	CHIP CAP.	220pF	50V	CH	GRM39CH221J50PT	K22174243		1-	B	c5
C 1206	CHIP CAP.	10pF	50V	CH	GRM39CH100D50PT	K22174211		1-	A	E5
C 1210	CHIP CAP.	27pF	50V	CH	GRM39CH270J50PT	K22174221		1-	A	G5
C 1211	CHIP CAP.	0.01uF	16V	B	ECUV1C103KBV	K22129510		1-	B	a5
C 1212	CHIP CAP.	0.01uF	16V	B	ECUV1C103KBV	K22129510		1-	B	a5
C 1213	CHIP CAP.	33pF	50V	CH	GRM39CH330J50PT	K22174223		1-	B	a5
C 1215	CHIP CAP.	39pF	50V	CH	GRM39CH390J50PT	K22174225		1-	A	G5
C 1216	CHIP CAP.	0.01uF	16V	B	ECUV1C103KBV	K22129510		1-	A	F5
C 1217	CHIP CAP.	3pF	50V	CJ	GRM39CJ030C50PT	K22174204		1-	A	E3
C 1220	CHIP CAP.	22pF	50V	CH	GRM39CH220J50PT	K22174219		1-	A	E3
C 1221	CHIP CAP.	0.01uF	16V	B	ECUV1C103KBV	K22129510		1-	B	a5
C 1222	CHIP CAP.	0.01uF	16V	B	ECUV1C103KBV	K22129510		1-	A	E5
C 1226	CHIP CAP.	1pF	50V	CK	GRM39CK010C50PT	K22174202		1-	A	D5
C 1227	CHIP CAP.	27pF	50V	CH	GRM39CH270J50PT	K22174221		1-	A	G4
C 1228	CHIP CAP.	39pF	50V	CH	GRM39CH390J50PT	K22174225		1-	A	G4
C 1233	CHIP CAP.	22pF	50V	CH	GRM39CH220J50PT	K22174219		1-	A	F3
C 1234	CHIP CAP.	39pF	50V	CH	GRM39CH390J50PT	K22174225		1-	A	E3
C 1235	CHIP CAP.	10pF	50V	CH	GRM39CH100D50PT	K22174211		1-	A	G3
C 1236	CHIP CAP.	10pF	50V	CH	GRM39CH100D50PT	K22174211		1-	A	F3
C 1237	CHIP CAP.	8pF	50V	CH	GRM39CH080D50PT	K22174209		1-	A	G3
C 1238	CHIP CAP.	10pF	50V	CH	GRM39CH100D50PT	K22174211		1-	A	E3
C 1239	CHIP CAP.	10pF	50V	CH	GRM39CH100D50PT	K22174211		1-	A	E3
C 1241	CHIP CAP.	0.01uF	16V	B	ECUV1C103KBV	K22129510		1-	B	a4
C 1242	CHIP CAP.	0.01uF	16V	B	ECUV1C103KBV	K22129510		1-	A	F3
C 1243	CHIP CAP.	0.01uF	16V	B	ECUV1C103KBV	K22129510		1-	B	c3
C 1244	CHIP CAP.	5pF	50V	CH	GRM39CH050C50PT	K22174206		1-	A	F3

REF.	DESCRIPTION	VALUE	WV	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT.	SIDE.	LAY ADR.
C 1245	CHIP CAP.	0.001uF	50V	B	GRM39B102K50PT	K22174821		1-	B	b3
C 1246	CHIP CAP.	0.01uF	16V	B	ECUV1C103KBV	K22129510		1-	B	b4
C 1247	CHIP CAP.	0.01uF	16V	B	ECUV1C103KBV	K22129510		1-	B	a3
C 1248	CHIP CAP.	0.01uF	16V	B	ECUV1C103KBV	K22129510		1-	A	G3
C 1249	CHIP CAP.	220pF	50V	CH	GRM39CH221J50PT	K22174243		1-	A	G3
C 1250	CHIP CAP.	220pF	50V	CH	GRM39CH221J50PT	K22174243		1-	A	G4
C 1251	CHIP CAP.	0.01uF	16V	B	ECUV1C103KBV	K22129510		1-	A	G4
C 1253	CHIP CAP.	0.001uF	50V	B	GRM39B102K50PT	K22174821		1-	B	b3
C 1255	CHIP CAP.	470pF	50V	CH	GRM39CH471J50PT	K22174249		1-	B	b2
C 1256	CHIP CAP.	470pF	50V	CH	GRM39CH471J50PT	K22174249		1-	B	b2
C 1257	CHIP CAP.	470pF	50V	CH	GRM39CH471J50PT	K22174249		1-	B	b2
C 1258	CHIP CAP.	470pF	50V	CH	GRM39CH471J50PT	K22174249		1-	B	b2
C 1259	CHIP CAP.	0.01uF	16V	B	ECUV1C103KBV	K22129510		1-	B	c3
C 1260	CHIP CAP.	0.001uF	50V	B	GRM39B102K50PT	K22174821		1-	B	c3
C 1261	CHIP CAP.	33pF	50V	CH	GRM39CH330J50PT	K22174223		1-	A	G5
C 1263	CHIP CAP.	39pF	50V	CH	GRM39CH390J50PT	K22174225		1-	A	G4
C 1264	CHIP CAP.	39pF	50V	CH	GRM39CH390J50PT	K22174225		1-	A	G5
C 1265	CHIP CAP.	0.01uF	16V	B	ECUV1C103KBV	K22129510		1-	B	a5
C 1266	CHIP CAP.	27pF	50V	CH	GRM39CH270J50PT	K22174221		1-	B	a5
C 1267	CHIP CAP.	0.01uF	16V	B	ECUV1C103KBV	K22129510		1-	B	a5
C 1268	CHIP CAP.	0.01uF	16V	B	ECUV1C103KBV	K22129510		1-	B	a4
C 1269	CHIP CAP.	0.01uF	16V	B	ECUV1C103KBV	K22129510		1-	B	a4
C 1270	CHIP CAP.	0.01uF	16V	B	ECUV1C103KBV	K22129510		1-	B	a5
C 1271	CHIP CAP.	0.01uF	16V	B	ECUV1C103KBV	K22129510		1-	B	a4
C 1272	CHIP CAP.	0.01uF	16V	B	ECUV1C103KBV	K22129510		1-	B	a5
C 1273	CHIP CAP.	0.001uF	50V	B	GRM39B102K50PT	K22174821		1-	B	b3
C 1274	CHIP CAP.	0.01uF	16V	B	ECUV1C103KBV	K22129510		1-	B	b3
C 1275	CHIP CAP.	0.001uF	50V	B	GRM39B102K50PT	K22174821		1-	B	c4
C 1276	CHIP CAP.	0.01uF	16V	B	ECUV1C103KBV	K22129510		1-	B	c4
C 1278	CHIP CAP.	39pF	50V	CH	GRM39CH390J50PT	K22174225		1-	A	F3
C 1279	CHIP CAP.	27pF	50V	CH	GRM39CH270J50PT	K22174221		1-	A	F3
C 1280	CHIP CAP.	39pF	50V	CH	GRM39CH390J50PT	K22174225		1-	A	E3
C 1282	CHIP CAP.	3pF	50V	CJ	GRM39CJ030C50PT	K22174204		1-	A	E3
C 1284	CHIP CAP.	39pF	50V	CH	GRM39CH390J50PT	K22174225		1-	A	E3
C 1285	CHIP CAP.	27pF	50V	CH	GRM39CH270J50PT	K22174221		1-	A	E2
C 1287	CHIP CAP.	0.01uF	16V	B	ECUV1C103KBV	K22129510		1-	A	E3
C 1288	CHIP CAP.	0.01uF	16V	B	ECUV1C103KBV	K22129510		1-	B	d3
C 1289	CHIP CAP.	0.01uF	16V	B	ECUV1C103KBV	K22129510		1-	B	d4
C 1290	CHIP CAP.	0.01uF	16V	B	ECUV1C103KBV	K22129510		1-	A	E4
C 1291	CHIP CAP.	0.01uF	16V	B	ECUV1C103KBV	K22129510		1-	A	E4
C 1292	CHIP CAP.	12pF	50V	CH	GRM39CH120J50PT	K22174213		1-	B	c4
C 1293	CHIP CAP.	33pF	50V	CH	GRM39CH330J50PT	K22174223		1-	A	E4
C 1294	CHIP CAP.	0.01uF	16V	B	ECUV1C103KBV	K22129510		1-	B	c4
C 1296	CHIP CAP.	0.001uF	50V	B	GRM39B102K50PT	K22174821		1-	A	D2
C 1299	CHIP CAP.	47pF	50V	CH	GRM39CH470J50PT	K22174227		1-	A	D4
C 1300	CHIP CAP.	0.01uF	16V	B	ECUV1C103KBV	K22129510		1-	A	E5
C 1301	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	A	F5
C 1302	CHIP CAP.	0.01uF	16V	B	ECUV1C103KBV	K22129510		1-	B	b5
C 1304	CHIP CAP.	0.001uF	50V	B	GRM39B102K50PT	K22174821		1-	B	c3
C 1305	CHIP CAP.	0.001uF	50V	B	GRM39B102K50PT	K22174821		1-	B	b5
C 1307	CHIP CAP.	0.01uF	16V	B	ECUV1C103KBV	K22129510		1-	B	a5
C 1308	CHIP CAP.	0.01uF	16V	B	ECUV1C103KBV	K22129510		1-	B	a4
C 1309	CHIP CAP.	0.01uF	16V	B	ECUV1C103KBV	K22129510		1-	B	a5
C 1310	CHIP CAP.	0.01uF	16V	B	ECUV1C103KBV	K22129510		1-	B	a4
C 1311	CHIP CAP.	0.001uF	50V	B	GRM39B102K50PT	K22174821		1-	B	d4
C 1312	CHIP CAP.	0.001uF	50V	B	GRM39B102K50PT	K22174821		1-	B	c5
C 1314	CHIP CAP.	0.001uF	50V	B	GRM39B102K50PT	K22174821		1-	B	c3
C 1315	CHIP CAP.	0.001uF	50V	B	GRM39B102K50PT	K22174821		1-	B	a3
C 1316	CHIP CAP.	0.01uF	16V	B	ECUV1C103KBV	K22129510		1-	A	D2
C 1317	CHIP CAP.	0.001uF	50V	B	GRM39B102K50PT	K22174821		1-	B	d2

REF.	DESCRIPTION	VALUE	WV	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT.	SIDE.	LAY ADR.
C 1318	CHIP CAP.	0.001uF	50V	B	GRM39B102K50PT	K22174821		1-	B	b5
C 1319	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	B	b5
C 1322	CHIP CAP.	0.01uF	16V	B	ECUV1C103KBV	K22129510		1-	A	F4
C 1323	CHIP TA.CAP.	4.7uF	16V		TEMSVA1C475M-8R	K78120031		1-	A	C3
C 1324	CHIP CAP.	0.001uF	50V	B	GRM39B102K50PT	K22174821		1-	A	C3
C 1326	FILM CAP.	7pF	500V		UC232H0070D-T	K33279046		1-	B	a2
C 1327	CHIP CAP.	2pF	50V	CK	GRM39CK020C50PT	K22174203		1-	B	a3
C 1328	CHIP CAP.	47pF	50V	CH	GRM39CH470J50PT	K22174227		1-	A	D5
C 1329	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	A	A5
C 1330	CHIP CAP.	0.0056uF	50V	B	GRM39B562M50PT	K22174818		1-	A	A5
C 1331	CHIP CAP.	0.01uF	16V	B	ECUV1C103KBV	K22129510		1-	A	G3
C 1332	FILM CAP.	5pF	500V		UC232H0050D-T	K33279010		1-	B	a2
C 1333	FILM CAP.	22pF	500V		UC232H0220J-T	K33279021		1-	B	a2
C 1335	FILM CAP.	47pF	500V		UC232H0470J-T	K33279034		1-	B	a2
C 1336	FILM CAP.	33pF	500V		UC232H0330J-T	K33279024		1-	B	a1
C 1337	FILM CAP.	9pF	500V		UC232H0090D-T	K33279047		1-	B	a1
C 1338	FILM CAP.	5pF	500V		UC232H0050D-T	K33279010		1-	B	a1
C 1339	CHIP CAP.	0.001uF	630V	R	GHM1030R102K630PT	K22281801		1-	B	a1
C 1340	CHIP CAP.	0.001uF	50V	B	GRM39B102K50PT	K22174821		1-	A	F2
C 1341	CHIP CAP.	0.001uF	50V	B	GRM39B102K50PT	K22174821		1-	B	c2
C 1342	CHIP CAP.	0.01uF	16V	B	ECUV1C103KBV	K22129510		1-	A	E4
C 1344	AL.ELECTRO.CAP.	3300uF	16V		RE3-16V332M 3300UF	K40129065		1-		
C 1345	CHIP CAP.	0.0056uF	50V	B	GRM39B562M50PT	K22174818		1-	A	A5
C 1346	CHIP CAP.	0.0056uF	50V	B	GRM39B562M50PT	K22174818		1-	A	A5
C 1347	CHIP CAP.	0.0056uF	50V	B	GRM39B562M50PT	K22174818		1-	A	A5
C 2001	CHIP CAP.	100pF	50V	CH	GRM39CH101J50PT	K22174235		1-	A	B1
C 2002	CHIP CAP.	100pF	50V	CH	GRM39CH101J50PT	K22174235		1-	A	B1
C 2003	CHIP CAP.	100pF	50V	CH	GRM39CH101J50PT	K22174235		1-	A	A1
C 2004	CHIP CAP.	100pF	50V	CH	GRM39CH101J50PT	K22174235		1-	A	B1
C 2005	CHIP CAP.	100pF	50V	CH	GRM39CH101J50PT	K22174235		1-	A	B1
C 2006	CHIP CAP.	100pF	50V	CH	GRM39CH101J50PT	K22174235		1-	A	B1
C 2007	CHIP CAP.	100pF	50V	CH	GRM39CH101J50PT	K22174235		1-	A	B1
C 2008	CHIP CAP.	100pF	50V	CH	GRM39CH101J50PT	K22174235		1-	A	B1
C 2009	CHIP CAP.	100pF	50V	CH	GRM39CH101J50PT	K22174235		1-	A	B1
C 2010	CHIP CAP.	100pF	50V	CH	GRM39CH101J50PT	K22174235		1-	A	A1
C 2011	CHIP CAP.	100pF	50V	CH	GRM39CH101J50PT	K22174235		1-	A	B1
C 2012	CHIP CAP.	100pF	50V	CH	GRM39CH101J50PT	K22174235		1-	A	B1
C 2013	CHIP CAP.	100pF	50V	CH	GRM39CH101J50PT	K22174235		1-	A	A1
C 2014	CHIP CAP.	100pF	50V	CH	GRM39CH101J50PT	K22174235		1-	A	A1
C 2015	CHIP CAP.	100pF	50V	CH	GRM39CH101J50PT	K22174235		1-	A	A1
C 2016	CHIP CAP.	100pF	50V	CH	GRM39CH101J50PT	K22174235		1-	A	A1
C 2017	CHIP CAP.	100pF	50V	CH	GRM39CH101J50PT	K22174235		1-	A	A1
C 2018	CHIP CAP.	100pF	50V	CH	GRM39CH101J50PT	K22174235		1-	B	f5
C 2019	CHIP CAP.	100pF	50V	CH	GRM39CH101J50PT	K22174235		1-	B	f5
C 2020	CHIP TA.CAP.	4.7uF	16V		TEMSVA1C475M-8R	K78120031		1-	B	f5
C 2021	CHIP CAP.	220pF	50V	CH	GRM39CH221J50PT	K22174243		1-	B	f5
C 2022	CHIP TA.CAP.	4.7uF	16V		TEMSVA1C475M-8R	K78120031		1-	A	B5
C 2023	CHIP CAP.	100pF	50V	CH	GRM39CH101J50PT	K22174235		1-	B	f5
C 2024	CHIP CAP.	100pF	50V	CH	GRM39CH101J50PT	K22174235		1-	B	f5
C 2025	CHIP TA.CAP.	4.7uF	16V		TEMSVA1C475M-8R	K78120031		1-	B	f5
C 2026	CHIP TA.CAP.	4.7uF	16V		TEMSVA1C475M-8R	K78120031		1-	B	f5
C 2027	CHIP CAP.	100pF	50V	CH	GRM39CH101J50PT	K22174235		1-	A	B5
C 2028	CHIP CAP.	100pF	50V	CH	GRM39CH101J50PT	K22174235		1-	B	e5
C 2029	CHIP TA.CAP.	4.7uF	16V		TEMSVA1C475M-8R	K78120031		1-	B	e5
C 2030	CHIP CAP.	0.001uF	50V	B	GRM39B102K50PT	K22174821		1-	A	B5
C 2031	CHIP CAP.	0.001uF	50V	B	GRM39B102K50PT	K22174821		1-	B	f5
C 2032	CHIP TA.CAP.	4.7uF	16V		TEMSVA1C475M-8R	K78120031		1-	A	C4
C 2033	CHIP TA.CAP.	10uF	10V		TEMSVA1A106M-8R	K78100028		1-	B	g1
C 2034	CHIP CAP.	100pF	50V	CH	GRM39CH101J50PT	K22174235		1-	A	A1
C 2035	CHIP TA.CAP.	10uF	10V		TEMSVA1A106M-8R	K78100028		1-	A	A2

REF.	DESCRIPTION	VALUE	WV	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT.	SIDE.	LAY ADR.
C 2036	CHIP CAP.	100pF	50V	CH	GRM39CH101J50PT	K22174235		1-	A	B1
C 2037	CHIP CAP.	100pF	50V	CH	GRM39CH101J50PT	K22174235		1-	A	A1
C 2038	CHIP CAP.	100pF	50V	CH	GRM39CH101J50PT	K22174235		1-	A	A1
C 2039	CHIP CAP.	100pF	50V	CH	GRM39CH101J50PT	K22174235		1-	A	A1
C 2040	CHIP CAP.	470pF	50V	CH	GRM39CH471J50PT	K22174249		1-	B	f5
C 2041	CHIP CAP.	470pF	50V	CH	GRM39CH471J50PT	K22174249		1-	B	f5
C 2042	CHIP CAP.	470pF	50V	CH	GRM39CH471J50PT	K22174249		1-	B	g5
C 2043	CHIP CAP.	220pF	50V	CH	GRM39CH221J50PT	K22174243		1-	B	f5
C 2044	CHIP CAP.	470pF	50V	CH	GRM39CH471J50PT	K22174249		1-	B	f5
C 2045	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	A	B5
C 2046	CHIP CAP.	47pF	50V	CH	GRM39CH470J50PT	K22174227		1-	B	f5
C 2047	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	B	f5
C 2051	CHIP CAP.	100pF	50V	CH	GRM39CH101J50PT	K22174235		1-	B	g1
C 2052	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	B	f4
C 2057	CHIP CAP.	0.001uF	50V	B	GRM39B102K50PT	K22174821		1-	B	d4
C 2058	CHIP CAP.	0.01uF	16V	B	ECUV1C103KBV	K22129510		1-	B	e4
C 2059	CHIP CAP.	0.0022uF	50V	B	GRM39B222K50PT	K22174822		1-	B	e4
C 2060	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	B	e4
C 2061	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	B	e4
C 2062	CHIP TA.CAP.	4.7uF	16V		TEMSVA1C475M-8R	K78120031		1-	A	C4
C 2063	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	A	B5
C 2064	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	A	B5
C 2065	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	B	f4
C 2066	CHIP CAP.	0.015uF	25V	B	GRM39B153K25PT	K22144805		1-	B	f4
C 2067	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	B	e3
C 2069	CHIP TA.CAP.	1uF	16V		TESVA1C105M1-8R	K78120009		1-	A	C3
C 2071	CHIP CAP.	0.01uF	16V	B	ECUV1C103KBV	K22129510		1-	A	C3
C 2072	CHIP TA.CAP.	4.7uF	16V		TEMSVA1C475M-8R	K78120031		1-	A	C3
C 2073	CHIP CAP.	220pF	50V	CH	GRM39CH221J50PT	K22174243		1-	A	C4
C 2074	CHIP CAP.	220pF	50V	CH	GRM39CH221J50PT	K22174243		1-	A	C4
C 2075	CHIP CAP.	0.22uF	10V	B	GRM39B224K10PT	K22104801		1-	B	g3
C 2078	AL.ELECTRO.CAP.	100uF	16V		ECEV1CA101WP	K48120012		1-	A	A2
C 2079	CHIP CAP.	0.22uF	10V	B	GRM39B224K10PT	K22104801		1-	B	g3
C 2080	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	A	A2
C 2081	CHIP TA.CAP.	10uF	10V		TEMSVA1A106M-8R	K78100028		1-	A	A3
C 2082	CHIP TA.CAP.	10uF	10V		TEMSVA1A106M-8R	K78100028		1-	B	g3
C 2083	CHIP TA.CAP.	1uF	16V		TESVA1C105M1-8R	K78120009		1-	B	e4
C 2084	CHIP CAP.	470pF	50V	CH	GRM39CH471J50PT	K22174249		1-	B	e4
C 2085	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	B	e4
C 2086	CHIP TA.CAP.	1uF	16V		TESVA1C105M1-8R	K78120009		1-	A	C4
C 2087	CHIP CAP.	470pF	50V	CH	GRM39CH471J50PT	K22174249		1-	B	e4
C 2088	CHIP CAP.	470pF	50V	CH	GRM39CH471J50PT	K22174249		1-	B	d4
C 2089	CHIP CAP.	0.001uF	50V	B	GRM39B102K50PT	K22174821		1-	B	f5
C 2090	CHIP TA.CAP.	4.7uF	16V		TEMSVA1C475M-8R	K78120031		1-	A	B5
C 2092	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	B	f3
C 2093	CHIP CAP.	22pF	50V	CH	GRM39CH220J50PT	K22174219		1-	A	D3
C 2094	CHIP CAP.	0.01uF	16V	B	ECUV1C103KBV	K22129510		1-	A	B4
C 2095	CHIP CAP.	0.01uF	16V	B	ECUV1C103KBV	K22129510		1-	A	C5
C 2097	CHIP TA.CAP.	1uF	16V		TESVA1C105M1-8R	K78120009		1-	A	A3
C 2098	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	B	g4
C 2099	CHIP CAP.	270pF	50V	B	GRM39B271M50PT	K22174802		1-	B	e5
C 2100	CHIP CAP.	0.01uF	16V	B	ECUV1C103KBV	K22129510		1-	B	e5
C 2101	CHIP CAP.	270pF	50V	B	GRM39B271M50PT	K22174802		1-	B	e5
C 2102	CHIP CAP.	0.01uF	16V	B	ECUV1C103KBV	K22129510		1-	B	e4
C 2103	CHIP CAP.	470pF	50V	CH	GRM39CH471J50PT	K22174249		1-	B	d4
C 2104	CHIP CAP.	0.0047uF	50V	B	GRM39B472K50PT	K22174833		1-	B	d4
C 2105	CHIP CAP.	9pF	50V	CH	GRM39CH090D50PT	K22174210		1-	A	A4
C 2106	CHIP CAP.	18pF	50V	CH	GRM39CH180J50PT	K22174217		1-	A	A4
C 2107	CHIP CAP.	4pF	50V	CH	GRM39CH040C50PT	K22174205		1-	A	A4
C 2108	CHIP CAP.	820pF	50V	B	GRM39B821M50PT	K22174808		1-	A	D4

REF.	DESCRIPTION	VALUE	WV	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT.	SIDE.	LAY ADR.
C 2109	CHIP CAP.	0.0056uF	50V	B	GRM39B562M50PT	K22174818		1-	A	D3
C 2110	CHIP TA.CAP.	1uF	16V		TESVA1C105M1-8R	K78120009		1-	B	d4
C 2111	CHIP TA.CAP.	4.7uF	16V		TEMSVA1C475M-8R	K78120031		1-	A	D4
C 2112	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	A	D3
C 2113	CHIP TA.CAP.	4.7uF	16V		TEMSVA1C475M-8R	K78120031		1-	A	D4
C 2114	CHIP CAP.	7pF	50V	CH	GRM39CH070D50PT	K22174208		1-	A	C3
C 2115	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	A	C4
C 2116	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	A	C3
C 2117	CHIP TA.CAP.	4.7uF	16V		TEMSVA1C475M-8R	K78120031		1-	A	C5
C 2118	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	A	C5
C 2119	CHIP CAP.	0.0015uF	50V	B	GRM39B152K50PT	K22174827		1-	A	C5
C 2120	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	A	C5
C 2121	CHIP CAP.	0.001uF	50V	B	GRM39B102K50PT	K22174821		1-	A	C5
C 2122	CHIP TA.CAP.	4.7uF	16V		TEMSVA1C475M-8R	K78120031		1-	A	C5
C 2123	CHIP TA.CAP.	1uF	16V		TESVA1C105M1-8R	K78120009		1-	A	C5
C 2124	CHIP CAP.	10pF	50V	CH	GRM39CH100D50PT	K22174211		1-	B	e5
C 2125	CHIP CAP.	0.047uF	16V	B	GRM39B473K16PT	K22124804		1-	A	A3
C 2126	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	A	B3
C 2127	CHIP TA.CAP.	1uF	16V		TESVA1C105M1-8R	K78120009		1-	A	B3
C 2128	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	A	B2
C 2129	CHIP CAP.	0.01uF	16V	B	ECUV1C103KBV	K22129510		1-	B	e5
C 2130	CHIP TA.CAP.	10uF	10V		TEMSVA1A106M-8R	K78100028		1-	A	C5
C 2131	CHIP CAP.	330pF	50V	B	GRM39B331K50PT	K22174820		1-	B	e5
C 2132	CHIP CAP.	0.01uF	16V	B	ECUV1C103KBV	K22129510		1-	B	d5
C 2133	CHIP CAP.	0.01uF	16V	B	ECUV1C103KBV	K22129510		1-	B	e4
C 2134	CHIP CAP.	330pF	50V	B	GRM39B331K50PT	K22174820		1-	B	e4
C 2135	CHIP CAP.	0.01uF	16V	B	ECUV1C103KBV	K22129510		1-	B	d4
C 2136	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	B	f4
C 2137	CHIP TA.CAP.	1uF	16V		TESVA1C105M1-8R	K78120009		1-	A	C5
C 2138	CHIP CAP.	820pF	50V	B	GRM39B821M50PT	K22174808		1-	B	e5
C 2139	CHIP CAP.	0.001uF	50V	B	GRM39B102K50PT	K22174821		1-	B	e5
C 2140	CHIP CAP.	220pF	50V	CH	GRM39CH221J50PT	K22174243		1-	B	e5
C 2141	CHIP TA.CAP.	4.7uF	16V		TEMSVA1C475M-8R	K78120031		1-	B	e4
C 2142	CHIP CAP.	0.01uF	16V	B	ECUV1C103KBV	K22129510		1-	B	d5
C 2143	CHIP CAP.	0.001uF	50V	B	GRM39B102K50PT	K22174821		1-	B	f5
C 2144	CHIP CAP.	0.01uF	16V	B	ECUV1C103KBV	K22129510		1-	B	d4
C 2145	CHIP CAP.	0.01uF	16V	B	ECUV1C103KBV	K22129510		1-	B	f2
C 2146	CHIP CAP.	0.01uF	16V	B	ECUV1C103KBV	K22129510		1-	A	A5
C 2147	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	B	f4
C 2148	CHIP CAP.	0.0022uF	50V	B	GRM39B222K50PT	K22174822		1-	B	e5
C 2149	CHIP CAP.	100pF	50V	CH	GRM39CH101J50PT	K22174235		1-	B	e5
C 2150	AL.ELECTRO.CAP.	470uF	16V		RE3-16V471M 470UF	K40129066		1-	A	C2
C 2151	CHIP CAP.	0.001uF	50V	B	GRM39B102K50PT	K22174821		1-	B	f2
C 2153	CHIP CAP.	0.01uF	16V	B	ECUV1C103KBV	K22129510		1-	B	f3
C 2155	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	A	B4
C 2156	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	B	g4
C 2157	CHIP TA.CAP.	4.7uF	16V		TEMSVA1C475M-8R	K78120031		1-	B	g4
C 2158	CHIP TA.CAP.	4.7uF	16V		TEMSVA1C475M-8R	K78120031		1-	B	g4
C 2159	CHIP CAP.	0.22uF	10V	B	GRM39B224K10PT	K22104801		1-	B	g4
C 2160	CHIP TA.CAP.	4.7uF	16V		TEMSVA1C475M-8R	K78120031		1-	B	g4
C 2162	CHIP TA.CAP.	10uF	10V		TEMSVA1A106M-8R	K78100028		1-	B	g4
C 2163	CHIP CAP.	0.001uF	50V	B	GRM39B102K50PT	K22174821		1-	B	f2
C 2164	CHIP CAP.	0.22uF	10V	B	GRM39B224K10PT	K22104801		1-	B	e3
C 2165	CHIP CAP.	0.01uF	16V	B	ECUV1C103KBV	K22129510		1-	A	B3
C 2166	CHIP CAP.	0.01uF	16V	B	ECUV1C103KBV	K22129510		1-	A	B3
C 2167	CHIP CAP.	0.01uF	16V	B	ECUV1C103KBV	K22129510		1-	A	B3
C 2168	CHIP CAP.	0.01uF	16V	B	ECUV1C103KBV	K22129510		1-	B	f3
C 2169	CHIP TA.CAP.	4.7uF	16V		TEMSVA1C475M-8R	K78120031		1-	B	f3
C 2170	CHIP TA.CAP.	10uF	10V		TEMSVA1A106M-8R	K78100028		1-	B	g4
C 2171	CHIP TA.CAP.	4.7uF	16V		TEMSVA1C475M-8R	K78120031		1-	B	g4

MAIN Unit

REF.	DESCRIPTION	VALUE	WV	TOL.	MFR'S DESIG	VXSTD P/N	VERS.		SIDE.	LAY ADR.
C 2172	CHIP TA.CAP.	10uF	10V		TEMSVA1A106M-8R	K78100028		1-	B	f2
C 2173	CHIP CAP.	0.01uF	16V	B	ECUV1C103KBV	K22129510		1-	B	e3
C 2174	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	A	A3
C 2176	CHIP CAP.	100pF	50V	CH	GRM39CH101J50PT	K22174235		1-	A	B5
C 2177	CHIP CAP.	0.047uF	16V	B	GRM39B473K16PT	K22124804		1-	A	B3
C 2178	CHIP CAP.	0.01uF	16V	B	ECUV1C103KBV	K22129510		1-	B	a1
C 2179	CHIP CAP.	0.015uF	25V	B	GRM39B153K25PT	K22144805		1-	B	g5
C 2180	CHIP CAP.	0.015uF	25V	B	GRM39B153K25PT	K22144805		1-	B	g4
C 2181	CHIP CAP.	0.015uF	25V	B	GRM39B153K25PT	K22144805		1-	B	f5
C 2182	CHIP CAP.	0.015uF	25V	B	GRM39B153K25PT	K22144805		1-	B	f4
C 2209	CHIP CAP.	0.001uF	50V	B	GRM39B102K50PT	K22174821		1-	B	g5
C 2210	CHIP CAP.	0.001uF	50V	B	GRM39B102K50PT	K22174821		1-	B	g5
C 2211	CHIP TA.CAP.	4.7uF	16V		TEMSVA1C475M-8R	K78120031		1-	A	A5
C 2223	CHIP TA.CAP.	4.7uF	16V		TEMSVA1C475M-8R	K78120031		1-	A	A5
C 2226	CHIP CAP.	0.001uF	50V	B	GRM39B102K50PT	K22174821		1-	B	g5
C 2227	CHIP CAP.	0.01uF	16V	B	ECUV1C103KBV	K22129510		1-	B	f2
C 2228	CHIP CAP.	100pF	50V	CH	GRM39CH101J50PT	K22174235		1-	A	A5
C 2230	CHIP CAP.	100pF	50V	CH	GRM39CH101J50PT	K22174235		1-	B	f5
C 2251	CHIP TA.CAP.	4.7uF	16V		TEMSVA1C475M-8R	K78120031		1-	A	C3
C 2252	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	B	e3
C 2253	CHIP TA.CAP.	4.7uF	16V		TEMSVA1C475M-8R	K78120031		1-	A	C3
C 2255	CHIP CAP.	0.01uF	16V	B	ECUV1C103KBV	K22129510		1-	B	e3
C 2256	CHIP CAP.	0.01uF	16V	B	ECUV1C103KBV	K22129510		1-	B	e3
C 2257	CHIP CAP.	0.01uF	16V	B	ECUV1C103KBV	K22129510		1-	B	e3
C 2258	CHIP CAP.	0.01uF	16V	B	ECUV1C103KBV	K22129510		1-	B	e3
C 2259	CHIP CAP.	0.01uF	16V	B	ECUV1C103KBV	K22129510		1-	B	e2
C 2260	CHIP CAP.	0.01uF	16V	B	ECUV1C103KBV	K22129510		1-	B	e3
C 2261	CHIP CAP.	0.01uF	16V	B	ECUV1C103KBV	K22129510		1-	B	e3
C 2262	CHIP CAP.	0.01uF	16V	B	ECUV1C103KBV	K22129510		1-	B	e3
CD1001	CERAMIC DISC				CDBC450CX24-TC	H7901340		1-	B	b5
CF1001	CERAMIC FILTER				CFWM450G	H3900435		1-	A	F4
CF1002	CERAMIC FILTER				CFWM450E	H3900466		1-	A	F4
CO2001	CERAMIC OSC	1MHz			CSBF1000J221T-TC01	H7900950		1-	A	C4
D 1003	SURGE ABSORBER				P6KA18	Q9000721		1-	A	B2
D 1004	DIODE				1SS400 TE61	G2070634		1-	B	c2
D 1005	DIODE				1SS400 TE61	G2070634		1-	B	d2
D 1007	DIODE				HVU306A5TRF	G2070132		1-	A	G3
D 1009	DIODE				HVU306A5TRF	G2070132		1-	A	F3
D 1010	DIODE				1SV282(TPH3)	G2070778		1-	A	D5
D 1011	DIODE				1SV282(TPH3)	G2070778		1-	A	D5
D 1014	DIODE				1SV282(TPH3)	G2070778		1-	A	D5
D 1015	DIODE				1SV282(TPH3)	G2070778		1-	A	D5
D 1016	DIODE				1SV282(TPH3)	G2070778		1-	A	D5
D 1018	DIODE				1SV282(TPH3)	G2070778		1-	A	D5
D 1020	DIODE				1SV284(TPH3)	G2070622		1-	A	D5
D 1023	DIODE				HVU306A5TRF	G2070132		1-	A	D3
D 1024	DIODE				HVU306A5TRF	G2070132		1-	A	D3
D 1025	DIODE				1SS321 TE85R	G2070076		1-	B	c3
D 1027	DIODE				UDZS TE-17 5.6B	G2070910		1-	B	a5
D 1028	DIODE				HSC277TRF	G2070584		1-	B	b4
D 1029	DIODE				HSC277TRF	G2070584		1-	B	b4
D 1031	DIODE				HSC277TRF	G2070584		1-	A	G5
D 1034	DIODE				HSC277TRF	G2070584		1-	A	G5
D 1036	DIODE				DSA3A1	G2090445		1-	A	B1
D 1037	DIODE				HSM198S-TR	G2070570		1-	B	b2
D 1038	DIODE				HSM198S-TR	G2070570		1-	B	b2
D 1039	DIODE				HSC277TRF	G2070584		1-	A	G4
D 1040	DIODE				HSC277TRF	G2070584		1-	A	G4
D 1041	DIODE				1SS400 TE61	G2070634		1-	A	D2
D 1043	DIODE				HSC277TRF	G2070584		1-	B	b4

REF.	DESCRIPTION	VALUE	WV	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT.	SIDE.	LAY ADR.
D 1044	DIODE				HSC277TRF	G2070584		1-	B	b4
D 1047	DIODE				UM9957F/TR	G2070562		1-	B	a2
D 1048	DIODE				UM9957F/TR	G2070562		1-	B	a2
D 1049	DIODE				UM9957F/TR	G2070562		1-	B	a2
D 2001	DIODE				MC2846-T11-1	G2070702		1-	A	A3
D 2002	DIODE				1SS400 TE61	G2070634		1-	B	g1
D 2003	DIODE				1SS400 TE61	G2070634		1-	A	B5
D 2004	DIODE				1SS400 TE61	G2070634		1-	A	A2
D 2005	DIODE				1SS400 TE61	G2070634		1-	B	g1
D 2006	DIODE				MC2850-T11-1	G2070704		1-	B	e4
D 2007	DIODE				MC2850-T11-1	G2070704		1-	B	e4
D 2008	DIODE				MC2850-T11-1	G2070704		1-	B	e4
D 2009	DIODE				1SS400 TE61	G2070634		1-	B	f3
D 2010	DIODE				1SS400 TE61	G2070634		1-	A	B4
D 2011	DIODE				MC2846-T11-1	G2070702		1-	B	f2
D 2012	DIODE				MC2850-T11-1	G2070704		1-	A	B5
D 2013	DIODE				MC2850-T11-1	G2070704		1-	B	f3
D 2014	DIODE				1SS400 TE61	G2070634		1-	A	C4
F 2001	CHIP FUSE	0.25A			KAB-2402-251NA31	Q0000085		1-	A	A2
J 2001	CONNECTOR				JBY-25S-1A3F	P1090815		1-	B	f1
J 2004	CONNECTOR				BM03B-SRSS-TBT	P0091301		1-	A	A2
J 2005	CONNECTOR				AXN426C530P	P0091296		1-	A	B4
L 1001	COIL	0.033uH			AS1005-33NK	L0022546		1-	A	G2
L 1002	COIL	0.047uH			AS1007-47NK	L0022548		1-	A	G2
L 1003	COIL				E2 0.25-1.9-5.5T-R	L0022610		1-	A	G3
L 1004	COIL	0.047uH			AS1007-47NK	L0022548		1-	A	G2
L 1005	COIL				E2 0.25-1.9-5.5T-R	L0022610		1-	A	G3
L 1006	COIL				E2 0.25-1.9-5.5T-R	L0022610		1-	A	G3
L 1007	COIL				E2 0.25-1.85-8.5T-L	L0022576		1-	A	G3
L 1008	COIL	0.033uH			AS1005-33NK	L0022546		1-	A	G1
L 1009	COIL				E2 0.25-1.85-8.5T-L	L0022576		1-	A	E3
L 1010	M.RFC	0.47uH		5%	C2012C-R47J	L1691016		1-	A	D5
L 1011	COIL				E2 0.25-1.85-8.5T-L	L0022576		1-	A	E3
L 1012	M.RFC	0.015uH		2%	C1608CA-15NG	L1691034		1-	A	E3
L 1013	CHIP COIL	4.7uH			C2520F-4R7K	L1690592		1-	B	a4
L 1014	CHIP COIL	0.68uH			C2520C-R68J	L1690554		1-	A	F3
L 1015	M.RFC	0.47uH		5%	C2012C-R47J	L1691016		1-	A	D5
L 1016	M.RFC	0.47uH		5%	C2012C-R47J	L1691016		1-	A	D5
L 1017	M.RFC	0.1uH			HK1608 R10J-T	L1690528		1-	A	F3
L 1018	CHIP COIL	0.064uH			LQN1A64NJ04	L1690258		1-	A	G4
L 1019	COIL	0.11uH			AS0810-B0NK	L0022542		1-	A	E2
L 1020	COIL				E2 0.25-1.85-8.5T-L	L0022576		1-	A	F3
L 1021	CHIP COIL	0.064uH			LQN1A64NJ04	L1690258		1-	B	d2
L 1022	COIL	0.047uH			AS1007-47NK	L0022548		1-	A	G2
L 1023	COIL				E2 0.25-1.9-6.5T-L	L0022401		1-	A	D5
L 1024	M.RFC	0.47uH		5%	C2012C-R47J	L1691016		1-	A	D4
L 1025	M.RFC	0.47uH		5%	C2012C-R47J	L1691016		1-	A	D4
L 1026	COIL				E2 0.3-1.7-7T-R	L0022372		1-	A	D5
L 1029	CHIP COIL	0.084uH			LQN1A84NJ04	L1690259		1-	B	d3
L 1031	M.RFC	0.047uH			HK1608 47NJ-T	L1690524		1-	A	D4
L 1032	M.RFC	0.082uH			HK1608 82NJ-T	L1690527		1-	B	c4
L 1037	M.RFC	0.068uH			HK1608 68NJ-T	L1690526		1-	B	d3
L 1038	M.RFC	0.082uH			HK1608 82NJ-T	L1690527		1-	B	c4
L 1039	M.RFC	0.082uH			HK1608 82NJ-T	L1690527		1-	B	c4
L 1041	M.RFC	0.033uH			HK1608 33NJ-T	L1690522		1-	A	E4
L 1042	M.RFC	0.018uH			HK1608 18NJ-T	L1690519		1-	B	d3
L 1044	M.RFC	0.047uH			HK1608 47NJ-T	L1690524		1-	B	c3
L 1045	M.RFC	0.033uH			HK1608 33NJ-T	L1690522		1-	A	E4
L 1046	M.RFC	0.1uH			HK1608 R10J-T	L1690528		1-	A	F5
L 1047	M.RFC	0.56uH			LK2125 R56K-T	L1690316		1-	A	G4

MAIN Unit

REF.	DESCRIPTION	VALUE	WV	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT.	SIDE.	LAY ADR.
L 1049	M.RFC	0.56uH			LK2125 R56K-T	L1690316		1-	A	G4
L 1050	M.RFC	0.56uH			LK2125 R56K-T	L1690316		1-	B	a5
L 1051	M.RFC	0.33uH			LK1608 R33K-T	L1690412		1-	B	b5
L 1052	M.RFC	0.56uH			LK2125 R56K-T	L1690316		1-	B	a5
L 1053	M.RFC	0.1uH			HK1608 R10J-T	L1690528		1-	B	a5
L 1054	COIL				E2 0.25-1.9-5.5T-R	L0022610		1-	A	F3
L 1055	COIL				E2 0.25-1.9-5.5T-R	L0022610		1-	A	E3
L 1056	COIL				E2 0.25-1.9-5.5T-R	L0022610		1-	A	E3
L 1057	M.RFC	0.039uH			HK1608 39NJ-T	L1690523		1-	B	b4
L 1058	M.RFC	0.039uH			HK1608 39NJ-T	L1690523		1-	B	b4
L 1059	CHIP COIL	0.064uH			LQN1A64NJ04	L1690258		1-	A	G4
L 1060	M.RFC	0.033uH			HK1608 33NJ-T	L1690522		1-	A	F4
L 1061	M.RFC	0.047uH			HK1608 47NJ-T	L1690524		1-	A	E4
L 1063	M.RFC	0.47uH		5%	C2012C-R47J	L1691016		1-	A	D5
L 2001	M.RFC	2.2uH			LK1608 2R2K-T	L1690634		1-	A	A4
P 1001	WIRE ASSY				RED 125 <7>/<7>	T9318109		1-		
Q 1003	TRANSISTOR				IMH6A T108	G3070066		1-	B	d2
Q 1004	IC				MM1216ENRE	G1092432		1-	B	f2
Q 1005	TRANSISTOR				2SB1201S-TL	G3070195		1-	B	f2
Q 1006	TRANSISTOR				2SC4154-T11-1E	G3341548E		1-	B	d4
Q 1007	IC				NJM2902V-TE1	G1091679		1-	B	d2
Q 1010	TRANSISTOR				RT1N241M-T11-1	G3070249		1-	A	C5
Q 1011	TRANSISTOR				2SB1132 T100 Q	G3211327Q		1-	A	C3
Q 1012	TRANSISTOR				2SB1132 T100 Q	G3211327Q		1-	A	C3
Q 1014	TRANSISTOR				IMH6A T108	G3070066		1-	A	B3
Q 1015	TRANSISTOR				RT1N241M-T11-1	G3070249		1-	B	d5
Q 1017	IC				RA60H1317M	G1093737		1-	A	C1
Q 1018	TRANSISTOR				2SC3357-T2 RF	G3333577F		1-	A	F3
Q 1019	FET				2SK520-T2B K41	G3805207A		1-	A	D5
Q 1020	TRANSISTOR				2SC4226-T2B R24	G3342267D		1-	A	D4
Q 1025	TRANSISTOR				2SC3357-T2 RF	G3333577F		1-	B	d3
Q 1026	TRANSISTOR				2SC5107-O(TE85R)	G3351077O		1-	A	D4
Q 1027	TRANSISTOR				RT1N241M-T11-1	G3070249		1-	A	D4
Q 1028	TRANSISTOR				IMH6A T108	G3070066		1-	A	D4
Q 1029	TRANSISTOR				2SC5107-O(TE85R)	G3351077O		1-	B	c4
Q 1030	TRANSISTOR				2SC3357-T2 RF	G3333577F		1-	A	G4
Q 1031	TRANSISTOR				2SC3356-T2B R24	G3333567D		1-	B	d3
Q 1032	TRANSISTOR				2SC5107-O(TE85R)	G3351077O		1-	B	c4
Q 1033	IC				SA7025DK	G1093014		1-	A	E4
Q 1034	IC				TA31136FN(EL)	G1091605		1-	A	F5
Q 1035	TRANSISTOR				2SC4154-T11-1E	G3341548E		1-	A	E5
Q 1038	IC				NJM78L05UA TE1	G1091325		1-	B	b5
Q 1041	TRANSISTOR				2SC4215Y TE85R	G3342157Y		1-	B	a5
Q 1042	TRANSISTOR				RT1N241M-T11-1	G3070249		1-	A	F5
Q 1044	TRANSISTOR				RT1N241M-T11-1	G3070249		1-	A	F5
Q 1045	TRANSISTOR				IMH6A T108	G3070066		1-	B	b5
Q 1046	IC				RN5RL30AA-TR	G1091646		1-	B	c5
Q 1188	FET				2SK520-T2B K41	G3805207A		1-	A	F3
Q 1189	FET				2SK520-T2B K41	G3805207A		1-	A	E3
Q 1190	FET				2SK520-T2B K41	G3805207A		1-	A	E3
Q 1191	FET				2SK520-T2B K41	G3805207A		1-	A	F3
Q 1192	TRANSISTOR				2SC3357-T2 RF	G3333577F		1-	A	E4
Q 1193	TRANSISTOR				2SC4154-T11-1E	G3341548E		1-	A	F5
Q 1194	TRANSISTOR				RT1N241M-T11-1	G3070249		1-	A	A5
Q 2001	IC				NJM2902V-TE1	G1091679		1-	B	e5
Q 2002	TRANSISTOR				IMD3 T108	G3070053		1-	A	A3
Q 2003	IC				NJM2902V-TE1	G1091679		1-	B	e4
Q 2004	IC				TC4W53FU TE12L	G1091675		1-	A	A5
Q 2005	TRANSISTOR				RT1N241M-T11-1	G3070249		1-	A	B5
Q 2006	TRANSISTOR				IMX1 T110	G3070024		1-	B	g5

REF.	DESCRIPTION	VALUE	WV	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT.	SIDE.	LAY ADR.
Q 2007	IC				BU4066BF-E2	G1092593		1-	A	C4
Q 2008	TRANSISTOR				RT1N241M-T11-1	G3070249		1-	A	B5
Q 2009	TRANSISTOR				RT1N241M-T11-1	G3070249		1-	A	A1
Q 2010	TRANSISTOR				RT1N241M-T11-1	G3070249		1-	A	A1
Q 2011	TRANSISTOR				IMH6A T108	G3070066		1-	B	e4
Q 2013	TRANSISTOR				IMZ1 T108	G3070025		1-	B	f5
Q 2014	TRANSISTOR				RT1N241M-T11-1	G3070249		1-	A	B5
Q 2015	TRANSISTOR				RT1N241M-T11-1	G3070249		1-	A	C5
Q 2016	TRANSISTOR				DTC323TK T146	G3070042		1-	A	B5
Q 2017	IC				MX165CDW-TR	G1092775		1-	B	e3
Q 2018	IC				TDA7240AV	G1091020		1-	A	A3
Q 2019	IC				CXA1846N-T4	G1092690		1-	A	C4
Q 2020	TRANSISTOR				IMD3 T108	G3070053		1-	A	B4
Q 2021	TRANSISTOR				DTB123EK T146	G3070022		1-	B	f3
Q 2022	TRANSISTOR				DTB123EK T146	G3070022		1-	B	g5
Q 2023	TRANSISTOR				DTC323TK T146	G3070042		1-	A	A3
Q 2024	TRANSISTOR				2SC4154-T11-1E	G3341548E		1-	A	A4
Q 2025*	IC*				MB90F583B*	G1093208*		1-	A	B4
Q 2026	IC				BU4053BCF-E2	G1092723		1-	B	e5
Q 2027	FET				2SJ327-Z-E1	G4070010		1-	B	f2
Q 2028	IC				NJM78L05UA TE1	G1091325		1-	B	f2
Q 2029	TRANSISTOR				2SA1602A-T11-1F	G3116028F		1-	B	f3
Q 2030	TRANSISTOR				RT1N241M-T11-1	G3070249		1-	B	f3
Q 2031	IC				LA8630M-TE-R	G1093452		1-	B	g4
Q 2032	TRANSISTOR				RT1N241M-T11-1	G3070249		1-	A	C5
Q 2033	TRANSISTOR				RT1N241M-T11-1	G3070249		1-	A	B5
Q 2035	IC				RN5VL35AA-TR	G1091666		1-	B	e3
Q 2036	IC				AT24C256-10TI-2.7	G1093887		1-	A	A3
Q 2037	TRANSISTOR				RT1N241M-T11-1	G3070249		1-	A	B4
Q 2038	IC				TC4S66F TE85R	G1090893		1-	A	A4
Q 2039	TRANSISTOR				RT1N241M-T11-1	G3070249		1-	A	A4
Q 2040	IC				NJM2902V-TE1	G1091679		1-	B	e5
Q 2041	IC				NJM2902V-TE1	G1091679		1-	B	f5
Q 2042	IC				NJM2902V-TE1	G1091679		1-	B	g5
Q 2045	IC				TC4S66F TE85R	G1090893		1-	A	A4
Q 2046	IC				NJM2902V-TE1	G1091679		1-	B	e3
R 1002	CHIP RES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104		1-	B	d5
R 1003	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000		1-	B	d5
R 1004	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	B	g5
R 1005	CHIP RES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104		1-	A	A5
R 1006	CHIP RES.	120k	1/16W	5%	RMC1/16 124JATP	J24185124		1-	B	d5
R 1007	CHIP RES.	68k	1/16W	5%	RMC1/16 683JATP	J24185683		1-	A	C5
R 1008	CHIP RES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104		1-	A	C5
R 1010	CHIP RES.	3.3k	1/16W	5%	RMC1/16 332JATP	J24185332		1-	B	d2
R 1011	CHIP RES.	1k	1/16W	5%	RMC1/16 102JATP	J24185102		1-	B	d2
R 1013	CHIP RES.	220k	1/16W	5%	RMC1/16 224JATP	J24185224		1-	A	D2
R 1014	CHIP RES.	18k	1/16W	5%	RMC1/16 183JATP	J24185183		1-	B	f5
R 1015	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	B	f5
R 1016	CHIP RES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104		1-	B	e5
R 1017	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	B	d5
R 1018	CHIP RES.	2.2k	1/16W	5%	RMC1/16 222JATP	J24185222		1-	B	d5
R 1019	CHIP RES.	1k	1/16W	5%	RMC1/16 102JATP	J24185102		1-	B	c2
R 1020	CHIP RES.	1k	1/16W	5%	RMC1/16 102JATP	J24185102		1-	B	d2
R 1021	CHIP RES.	22k	1/16W	5%	RMC1/16 223JATP	J24185223		1-	B	c2
R 1022	CHIP RES.	22k	1/16W	5%	RMC1/16 223JATP	J24185223		1-	B	c2
R 1023	CHIP RES.	47k	1/16W	5%	RMC1/16 473JATP	J24185473		1-	B	c2
R 1024	CHIP RES.	47	1/16W	5%	RMC1/16 470JATP	J24185470		1-	A	D2
R 1025	CHIP RES.	1k	1/16W	5%	RMC1/16 102JATP	J24185102		1-	B	d4
R 1027	CHIP RES.	2.2k	1/16W	5%	RMC1/16 222JATP	J24185222		1-	A	D5
R 1028	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	B	c2

* Please contact VERTEX STANDARD.

MAIN Unit

REF.	DESCRIPTION	VALUE	WV	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT.	SIDE.	LAY ADR.
R 1029	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	B	c2
R 1030	CHIP RES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104		1-	B	c2
R 1031	CHIP RES.	68k	1/16W	5%	RMC1/16 683JATP	J24185683		1-	B	d2
R 1032	CHIP RES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104		1-	A	G3
R 1033	CHIP RES.	220k	1/16W	5%	RMC1/16 224JATP	J24185224		1-	B	c2
R 1035	CHIP RES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104		1-	A	C3
R 1037	CHIP RES.	2.2k	1/16W	5%	RMC1/16 222JATP	J24185222		1-	A	C3
R 1038	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	B	d5
R 1039	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	A	G3
R 1040	CHIP RES.	3.3k	1/16W	5%	RMC1/16 332JATP	J24185332		1-	A	F3
R 1041	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	A	E3
R 1042	CHIP RES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104		1-	A	F3
R 1043	CHIP RES.	2.7	1/10W	5%	RMC1/10T 2R7J	J24205279		1-	B	d2
R 1046	CHIP RES.	100	1/10W	5%	RMC1/10T 101J	J24205101		1-	B	d2
R 1047	CHIP RES.	220k	1/16W	5%	RMC1/16 224JATP	J24185224		1-	A	D5
R 1048	CHIP RES.	330	1/16W	5%	RMC1/16 331JATP	J24185331		1-	A	D5
R 1049	CHIP RES.	33k	1/16W	5%	RMC1/16 333JATP	J24185333		1-	A	D5
R 1050	CHIP RES.	22k	1/16W	5%	RMC1/16 223JATP	J24185223		1-	A	D5
R 1052	CHIP RES.	56k	1/16W	5%	RMC1/16 563JATP	J24185563		1-	B	d5
R 1053	CHIP RES.	47k	1/16W	5%	RMC1/16 473JATP	J24185473		1-	B	d5
R 1054	CHIP RES.	6.8k	1/16W	5%	RMC1/16 682JATP	J24185682		1-	B	d5
R 1056	CHIP RES.	4.7k	1/16W	5%	RMC1/16 472JATP	J24185472		1-	A	E5
R 1057	CHIP RES.	4.7k	1/16W	5%	RMC1/16 472JATP	J24185472		1-	A	E5
R 1058	CHIP RES.	2.2k	1/16W	5%	RMC1/16 222JATP	J24185222		1-	A	F3
R 1062	CHIP RES.	10	1/16W	5%	RMC1/16 100JATP	J24185100		1-	A	F3
R 1063	CHIP RES.	150	1/10W	5%	RMC1/10T 151J	J24205151		1-	A	F2
R 1064	CHIP RES.	330	1/16W	5%	RMC1/16 331JATP	J24185331		1-	B	b3
R 1065	CHIP RES.	3.3k	1/16W	5%	RMC1/16 332JATP	J24185332		1-	A	F3
R 1066	CHIP RES.	100	1/10W	5%	RMC1/10T 101J	J24205101		1-	B	d2
R 1069	CHIP RES.	47	1/16W	5%	RMC1/16 470JATP	J24185470		1-	A	D4
R 1070	CHIP RES.	22k	1/16W	5%	RMC1/16 223JATP	J24185223		1-	A	D4
R 1071	CHIP RES.	22k	1/16W	5%	RMC1/16 223JATP	J24185223		1-	A	D5
R 1072	CHIP RES.	270	1/16W	5%	RMC1/16 271JATP	J24185271		1-	A	D4
R 1073	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000		1-	A	E5
R 1074	CHIP RES.	330	1/16W	5%	RMC1/16 331JATP	J24185331		1-	A	D4
R 1078	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000		1-	A	E5
R 1081	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000		1-	A	E5
R 1082	CHIP RES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104		1-	A	E3
R 1083	CHIP RES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104		1-	A	E3
R 1084	CHIP RES.	47	1/10W	5%	RMC1/10T 470J	J24205470		1-	A	D3
R 1085	CHIP RES.	39	1/10W	5%	RMC1/10T 390J	J24205390		1-	A	D3
R 1086	CHIP RES.	56	1/16W	5%	RMC1/16 560JATP	J24185560		1-	A	D3
R 1087	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101		1-	A	D4
R 1088	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	A	D4
R 1089	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	A	D4
R 1090	CHIP RES.	15	1/16W	5%	RMC1/16 150JATP	J24185150		1-	B	c4
R 1091	CHIP RES.	560	1/16W	5%	RMC1/16 561JATP	J24185561		1-	A	D4
R 1092	CHIP RES.	4.7k	1/16W	5%	RMC1/16 472JATP	J24185472		1-	A	D4
R 1093	CHIP RES.	180k	1/16W	5%	RMC1/16 184JATP	J24185184		1-	B	c4
R 1094	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000		1-	A	E4
R 1095	CHIP RES.	270	1/16W	5%	RMC1/16 271JATP	J24185271		1-	A	E4
R 1097	CHIP RES.	10	1/16W	5%	RMC1/16 100JATP	J24185100		1-	B	b3
R 1100	CHIP RES.	10	1/16W	5%	RMC1/16 100JATP	J24185100		1-	A	G3
R 1101	CHIP RES.	1k	1/16W	5%	RMC1/16 102JATP	J24185102		1-	A	G4
R 1102	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	B	d3
R 1103	CHIP RES.	47	1/10W	5%	RMC1/10T 470J	J24205470		1-	A	D3
R 1104	CHIP RES.	15	1/16W	5%	RMC1/16 150JATP	J24185150		1-	B	c4
R 1105	CHIP RES.	47	1/16W	5%	RMC1/16 470JATP	J24185470		1-	B	c4
R 1106	CHIP RES.	220	1/16W	5%	RMC1/16 221JATP	J24185221		1-	B	d3
R 1107	CHIP RES.	47k	1/16W	5%	RMC1/16 473JATP	J24185473		1-	B	c4

REF.	DESCRIPTION	VALUE	WV	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT.	SIDE.	LAY ADR.
R 1108	CHIP RES.	220	1/16W	5%	RMC1/16 221JATP	J24185221		1-	B	c4
R 1109	CHIP RES.	330	1/16W	5%	RMC1/16 331JATP	J24185331		1-	B	c4
R 1110	CHIP RES.	22	1/16W	5%	RMC1/16 220JATP	J24185220		1-	B	c4
R 1112	CHIP RES.	47	1/16W	5%	RMC1/16 470JATP	J24185470		1-	A	G4
R 1113	CHIP RES.	47	1/10W	5%	RMC1/10T 470J	J24205470		1-	B	a4
R 1114	CHIP RES.	330	1/16W	5%	RMC1/16 331JATP	J24185331		1-	A	G4
R 1115	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101		1-	B	c3
R 1116	CHIP RES.	12k	1/16W	5%	RMC1/16 123JATP	J24185123		1-	B	b5
R 1117	CHIP RES.	1k	1/16W	5%	RMC1/16 102JATP	J24185102		1-	A	E4
R 1118	CHIP RES.	1k	1/16W	5%	RMC1/16 102JATP	J24185102		1-	A	E4
R 1119	CHIP RES.	1k	1/16W	5%	RMC1/16 102JATP	J24185102		1-	A	E4
R 1120	CHIP RES.	22	1/16W	5%	RMC1/16 220JATP	J24185220		1-	B	c4
R 1123	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000		1-	A	F4
R 1128	CHIP RES.	270	1/16W	5%	RMC1/16 271JATP	J24185271		1-	B	b5
R 1130	CHIP RES.	12k	1/16W	5%	RMC1/16 123JATP	J24185123		1-	B	b4
R 1131	CHIP RES.	12k	1/16W	5%	RMC1/16 123JATP	J24185123		1-	B	b4
R 1132	CHIP RES.	12k	1/16W	5%	RMC1/16 123JATP	J24185123		1-	B	b4
R 1133	CHIP RES.	12k	1/16W	5%	RMC1/16 123JATP	J24185123		1-	B	b4
R 1134	CHIP RES.	27k	1/16W	5%	RMC1/16 273JATP	J24185273		1-	B	c4
R 1135	CHIP RES.	3.3k	1/16W	5%	RMC1/16 332JATP	J24185332		1-	B	c4
R 1136	CHIP RES.	56	1/16W	5%	RMC1/16 560JATP	J24185560		1-	B	c3
R 1138	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	A	E5
R 1139	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	A	F5
R 1140	CHIP RES.	1k	1/16W	5%	RMC1/16 102JATP	J24185102		1-	A	E5
R 1141	CHIP RES.	120k	1/16W	5%	RMC1/16 124JATP	J24185124		1-	A	E5
R 1142	CHIP RES.	4.7k	1/16W	5%	RMC1/16 472JATP	J24185472		1-	A	F5
R 1145	CHIP RES.	47	1/16W	5%	RMC1/16 470JATP	J24185470		1-	B	b5
R 1147	CHIP RES.	2.2k	1/16W	5%	RMC1/16 222JATP	J24185222		1-	A	G4
R 1148	CHIP RES.	2.2k	1/16W	5%	RMC1/16 222JATP	J24185222		1-	A	G4
R 1149	CHIP RES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104		1-	B	a4
R 1150	CHIP RES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104		1-	B	b5
R 1153	CHIP RES.	2.2k	1/16W	5%	RMC1/16 222JATP	J24185222		1-	A	G4
R 1154	CHIP RES.	1k	1/16W	5%	RMC1/16 102JATP	J24185102		1-	B	b5
R 1155	CHIP RES.	47k	1/16W	5%	RMC1/16 473JATP	J24185473		1-	A	F5
R 1156	CHIP RES.	12k	1/16W	5%	RMC1/16 123JATP	J24185123		1-	B	b5
R 1157	CHIP RES.	4.7k	1/16W	5%	RMC1/16 472JATP	J24185472		1-	A	F5
R 1159	CHIP RES.	4.7k	1/16W	5%	RMC1/16 472JATP	J24185472		1-	A	E5
R 1161	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000		1-	B	b5
R 1165	CHIP RES.	2.2k	1/16W	5%	RMC1/16 222JATP	J24185222		1-	A	G5
R 1166	CHIP RES.	47k	1/16W	5%	RMC1/16 473JATP	J24185473		1-	B	b5
R 1167	CHIP RES.	2.2k	1/16W	5%	RMC1/16 222JATP	J24185222		1-	B	a5
R 1168	CHIP RES.	220k	1/16W	5%	RMC1/16 224JATP	J24185224		1-	B	a5
R 1169	CHIP RES.	680	1/16W	5%	RMC1/16 681JATP	J24185681		1-	B	a5
R 1170	CHIP RES.	560	1/16W	5%	RMC1/16 561JATP	J24185561		1-	B	a5
R 1171	CHIP RES.	22	1/16W	5%	RMC1/16 220JATP	J24185220		1-	B	a5
R 1172	CHIP RES.	2.2k	1/16W	5%	RMC1/16 222JATP	J24185222		1-	A	G5
R 1173	CHIP RES.	47k	1/16W	5%	RMC1/16 473JATP	J24185473		1-	A	F5
R 1174	CHIP RES.	2.2k	1/16W	5%	RMC1/16 222JATP	J24185222		1-	A	F5
R 1176	CHIP RES.	2.2k	1/16W	5%	RMC1/16 222JATP	J24185222		1-	A	F5
R 1180	CHIP RES.	100	1/2W	5%	RMC1/2 101JCTP	J24275101		1-	B	b2
R 1181	CHIP RES.	100	1/2W	5%	RMC1/2 101JCTP	J24275101		1-	B	b2
R 1184	CHIP RES.	4.7k	1/16W	5%	RMC1/16 472JATP	J24185472		1-	B	b2
R 1185	CHIP RES.	4.7k	1/16W	5%	RMC1/16 472JATP	J24185472		1-	B	b2
R 1186	CHIP RES.	3.3k	1/16W	5%	RMC1/16 332JATP	J24185332		1-	B	b2
R 1187	CHIP RES.	3.3k	1/16W	5%	RMC1/16 332JATP	J24185332		1-	B	b2
R 1190	CHIP RES.	220	1/16W	5%	RMC1/16 221JATP	J24185221		1-	B	d3
R 1191	CHIP RES.	15	1/16W	5%	RMC1/16 150JATP	J24185150		1-	B	d3
R 1288	CHIP RES.	220k	1/16W	5%	RMC1/16 224JATP	J24185224		1-	A	E5
R 1289	CHIP RES.	220	1/16W	5%	RMC1/16 221JATP	J24185221		1-	B	c3
R 1290	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101		1-	B	d4

REF.	DESCRIPTION	VALUE	WV	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT.	SIDE.	LAY ADR.
R 1291	CHIP RES.	3.3k	1/16W	5%	RMC1/16 332JATP	J24185332		1-	B	c4
R 1292	CHIP RES.	2.7k	1/16W	5%	RMC1/16 272JATP	J24185272		1-	B	c4
R 1293	CHIP RES.	47	1/16W	5%	RMC1/16 470JATP	J24185470		1-	B	c4
R 1294	CHIP RES.	150	1/10W	5%	RMC1/10T 151J	J24205151		1-	B	c4
R 1295	CHIP RES.	150	1/10W	5%	RMC1/10T 151J	J24205151		1-	B	c4
R 1297	CHIP RES.	100	1/10W	5%	RMC1/10T 101J	J24205101		1-	B	d3
R 1298	CHIP RES.	220	1/16W	5%	RMC1/16 221JATP	J24185221		1-	B	d3
R 1299	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	B	d3
R 1300	CHIP RES.	47	1/10W	5%	RMC1/10T 470J	J24205470		1-	A	D3
R 1301	CHIP RES.	820	1/10W	5%	RMC1/10T 821J	J24205821		1-	B	d3
R 1302	CHIP RES.	680	1/16W	5%	RMC1/16 681JATP	J24185681		1-	A	D2
R 1303	CHIP RES.	2.2k	1/16W	5%	RMC1/16 222JATP	J24185222		1-	A	D3
R 1304	CHIP RES.	47k	1/16W	5%	RMC1/16 473JATP	J24185473		1-	A	F5
R 1305	CHIP RES.	4.7k	1/16W	5%	RMC1/16 472JATP	J24185472		1-	A	F5
R 1306	CHIP RES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104		1-	A	C3
R 1307	CHIP RES.	2.2k	1/16W	5%	RMC1/16 222JATP	J24185222		1-	A	C3
R 1308	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	A	E5
R 1309	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	B	c5
R 1310	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	B	d3
R 1311	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	B	d2
R 1312	CHIP RES.	1k	1/16W	5%	RMC1/16 102JATP	J24185102		1-	B	c2
R 1313	CHIP RES.	22k	1/16W	5%	RMC1/16 223JATP	J24185223		1-	A	B5
R 1314	CHIP RES.	8.2k	1/16W	5%	RMC1/16 822JATP	J24185822		1-	A	A5
R 1315	CHIP RES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104		1-	A	A5
R 1316	CHIP RES.	56	1/16W	5%	RMC1/16 560JATP	J24185560		1-	B	c4
R 1317	CHIP RES.	330	1/16W	5%	RMC1/16 331JATP	J24185331		1-	A	F3
R 1318	CHIP RES.	15	1/16W	5%	RMC1/16 150JATP	J24185150		1-	A	F3
R 1319	CHIP RES.	15	1/16W	5%	RMC1/16 150JATP	J24185150		1-	A	F3
R 1320	CHIP RES.	150	1/10W	5%	RMC1/10T 151J	J24205151		1-	A	F2
R 1321	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000		1-	A	E4
R 1322	CHIP RES.	3.9k	1/16W	5%	RMC1/16 392JATP	J24185392		1-	A	E4
R 1323	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000		1-	A	E5
R 1324	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	A	A5
R 1325	CHIP RES.	82	1W	5%	RMC1 820JTE	J24305820		1-	B	c2
R 1326	CHIP RES.	47k	1/16W	5%	RMC1/16 473JATP	J24185473		1-	B	a1
R 1327	CHIP RES.	39	1/10W	5%	RMC1/10T 390J	J24205390		1-	A	D3
R 1328	CHIP RES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104		1-	A	A5
R 1329	CHIP RES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104		1-	A	A5
R 1330	CHIP RES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104		1-	A	A5
R 2001	CHIP RES.	470	1/16W	5%	RMC1/16 471JATP	J24185471		1-	B	f1
R 2002	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	A	A3
R 2003	CHIP RES.	47k	1/16W	5%	RMC1/16 473JATP	J24185473		1-	A	B4
R 2004	CHIP RES.	47k	1/16W	5%	RMC1/16 473JATP	J24185473		1-	B	f4
R 2005	CHIP RES.	330	1/16W	5%	RMC1/16 331JATP	J24185331		1-	A	A3
R 2006	CHIP RES.	330	1/16W	5%	RMC1/16 331JATP	J24185331		1-	B	g1
R 2007	CHIP RES.	1k	1/16W	5%	RMC1/16 102JATP	J24185102		1-	B	f1
R 2008	CHIP RES.	1k	1/16W	5%	RMC1/16 102JATP	J24185102		1-	B	f1
R 2009	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000		1-	B	f1
R 2010	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000		1-	B	g1
R 2011	CHIP RES.	1k	1/16W	5%	RMC1/16 102JATP	J24185102		1-	B	g1
R 2012	CHIP RES.	1k	1/16W	5%	RMC1/16 102JATP	J24185102		1-	B	g1
R 2013	CHIP RES.	1k	1/16W	5%	RMC1/16 102JATP	J24185102		1-	B	g1
R 2014	CHIP RES.	1k	1/16W	5%	RMC1/16 102JATP	J24185102		1-	B	g1
R 2015	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000		1-	B	f1
R 2016	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	A	B5
R 2017	CHIP RES.	330	1/16W	5%	RMC1/16 331JATP	J24185331		1-	B	f5
R 2018	CHIP RES.	330	1/16W	5%	RMC1/16 331JATP	J24185331		1-	B	f5
R 2019	CHIP RES.	560	1/16W	5%	RMC1/16 561JATP	J24185561		1-	B	f5
R 2020	CHIP RES.	120k	1/16W	5%	RMC1/16 124JATP	J24185124		1-	B	f5
R 2021	CHIP RES.	47k	1/16W	5%	RMC1/16 473JATP	J24185473		1-	A	B5

REF.	DESCRIPTION	VALUE	WV	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT.	SIDE.	LAY ADR.
R 2022	CHIP RES.	2.2k	1/16W	5%	RMC1/16 222JATP	J24185222		1-	B	f5
R 2023	CHIP RES.	680	1/16W	5%	RMC1/16 681JATP	J24185681		1-	A	B5
R 2024	CHIP RES.	470	1/16W	5%	RMC1/16 471JATP	J24185471		1-	B	f5
R 2025	CHIP RES.	680	1/16W	5%	RMC1/16 681JATP	J24185681		1-	B	f5
R 2026	CHIP RES.	150k	1/16W	5%	RMC1/16 154JATP	J24185154		1-	B	f5
R 2027	CHIP RES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104		1-	B	f4
R 2028	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	A	A3
R 2029	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000		1-	B	g1
R 2030	CHIP RES.	680	1/16W	5%	RMC1/16 681JATP	J24185681		1-	B	g1
R 2031	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000		1-	B	g1
R 2032	CHIP RES.	1k	1/16W	5%	RMC1/16 102JATP	J24185102		1-	B	f1
R 2033	CHIP RES.	1k	1/16W	5%	RMC1/16 102JATP	J24185102		1-	B	f1
R 2034	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	B	g1
R 2035	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	B	g1
R 2037	CHIP RES.	1k	1/16W	5%	RMC1/16 102JATP	J24185102		1-	B	g1
R 2039	CHIP RES.	1k	1/16W	5%	RMC1/16 102JATP	J24185102		1-	B	g1
R 2040	CHIP RES.	1k	1/16W	5%	RMC1/16 102JATP	J24185102		1-	B	g1
R 2041	CHIP RES.	5.6k	1/16W	5%	RMC1/16 562JATP	J24185562		1-	B	f4
R 2042	CHIP RES.	4.7k	1/16W	5%	RMC1/16 472JATP	J24185472		1-	B	f5
R 2043	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	B	f4
R 2044	CHIP RES.	1k	1/16W	5%	RMC1/16 102JATP	J24185102		1-	B	f1
R 2045	CHIP RES.	2.2k	1/16W	5%	RMC1/16 222JATP	J24185222		1-	B	f5
R 2046	CHIP RES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104		1-	A	B5
R 2047	CHIP RES.	4.7k	1/16W	5%	RMC1/16 472JATP	J24185472		1-	B	g5
R 2048	CHIP RES.	22k	1/16W	5%	RMC1/16 223JATP	J24185223		1-	A	B5
R 2049	CHIP RES.	4.7k	1/16W	5%	RMC1/16 472JATP	J24185472		1-	B	g5
R 2050	CHIP RES.	120k	1/16W	5%	RMC1/16 124JATP	J24185124		1-	B	f5
R 2051	CHIP RES.	4.7k	1/16W	5%	RMC1/16 472JATP	J24185472		1-	B	g5
R 2052	CHIP RES.	4.7k	1/16W	5%	RMC1/16 472JATP	J24185472		1-	B	g5
R 2053	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	A	B5
R 2054	CHIP RES.	22k	1/16W	5%	RMC1/16 223JATP	J24185223		1-	A	B5
R 2055	CHIP RES.	4.7k	1/16W	5%	RMC1/16 472JATP	J24185472		1-	B	f5
R 2056	CHIP RES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104		1-	A	B5
R 2057	CHIP RES.	47k	1/16W	5%	RMC1/16 473JATP	J24185473		1-	A	B5
R 2058	CHIP RES.	2.2k	1/16W	5%	RMC1/16 222JATP	J24185222		1-	B	e5
R 2059	CHIP RES.	47k	1/16W	5%	RMC1/16 473JATP	J24185473		1-	B	f4
R 2060	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	B	f5
R 2061	CHIP RES.	270k	1/16W	5%	RMC1/16 274JATP	J24185274		1-	B	f5
R 2062	CHIP RES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104		1-	B	f4
R 2063	CHIP RES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104		1-	B	f4
R 2064	CHIP RES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104		1-	B	f4
R 2065	CHIP RES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104		1-	A	C4
R 2066	CHIP RES.	680	1/16W	5%	RMC1/16 681JATP	J24185681		1-	A	C3
R 2067	CHIP RES.	470	1/16W	5%	RMC1/16 471JATP	J24185471		1-	A	C4
R 2068	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	B	e4
R 2069	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	B	e4
R 2070	CHIP RES.	4.7k	1/16W	5%	RMC1/16 472JATP	J24185472		1-	B	f5
R 2071	CHIP RES.	4.7k	1/16W	5%	RMC1/16 472JATP	J24185472		1-	B	f5
R 2072	CHIP RES.	4.7k	1/16W	5%	RMC1/16 472JATP	J24185472		1-	B	f5
R 2073	CHIP RES.	4.7k	1/16W	5%	RMC1/16 472JATP	J24185472		1-	B	f5
R 2074	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	A	C4
R 2075	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	A	B5
R 2076	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	B	e4
R 2077	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	B	d4
R 2079	CHIP RES.	470	1/16W	5%	RMC1/16 471JATP	J24185471		1-	B	d4
R 2080	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	B	d4
R 2081	CHIP RES.	1M	1/16W	5%	RMC1/16 105JATP	J24185105		1-	B	e4
R 2082	CHIP RES.	1M	1/16W	5%	RMC1/16 105JATP	J24185105		1-	B	e4
R 2083	CHIP RES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104		1-	B	e4
R 2084	CHIP RES.	1M	1/16W	5%	RMC1/16 105JATP	J24185105		1-	B	e4

MAIN Unit

REF.	DESCRIPTION	VALUE	WV	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT.	SIDE.	LAY ADR.
R 2085	CHIP RES.	47k	1/16W	5%	RMC1/16 473JATP	J24185473		1-	B	e4
R 2086	CHIP RES.	2.2k	1/16W	5%	RMC1/16 222JATP	J24185222		1-	B	e4
R 2087	CHIP RES.	4.7k	1/16W	5%	RMC1/16 472JATP	J24185472		1-	A	B5
R 2088	CHIP RES.	1M	1/16W	5%	RMC1/16 105JATP	J24185105		1-	A	B5
R 2089	CHIP RES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104		1-	B	f4
R 2092	CHIP RES.	3.3k	1/16W	5%	RMC1/16 332JATP	J24185332		1-	B	e3
R 2093	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	B	e3
R 2094	CHIP RES.	47	1/16W	5%	RMC1/16 470JATP	J24185470		1-	A	C3
R 2095	CHIP RES.	0.33	1W	10%	RMC1 R33KATE	J24309001		1-	A	A2
R 2096	CHIP RES.	2.2	1/16W	5%	RMC1/16 2R2JATP	J24185229		1-	B	g2
R 2097	CHIP RES.	2.2	1/16W	5%	RMC1/16 2R2JATP	J24185229		1-	B	g3
R 2098	CHIP RES.	0.33	1W	10%	RMC1 R33KATE	J24309001		1-	A	A2
R 2099	CHIP RES.	47k	1/16W	5%	RMC1/16 473JATP	J24185473		1-	B	e4
R 2100	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	B	e4
R 2101	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	B	e4
R 2103	CHIP RES.	15k	1/16W	5%	RMC1/16 153JATP	J24185153		1-	A	C4
R 2104	CHIP RES.	12k	1/16W	5%	RMC1/16 123JATP	J24185123		1-	A	C4
R 2105	CHIP RES.	150k	1/16W	5%	RMC1/16 154JATP	J24185154		1-	B	e4
R 2106	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000		1-	B	e4
R 2107	CHIP RES.	180	1/16W	5%	RMC1/16 181JATP	J24185181		1-	B	e4
R 2108	CHIP RES.	2.2k	1/16W	5%	RMC1/16 222JATP	J24185222		1-	B	e4
R 2110	CHIP RES.	150k	1/16W	5%	RMC1/16 154JATP	J24185154		1-	B	d4
R 2111	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	B	f4
R 2112	CHIP RES.	39k	1/16W	5%	RMC1/16 393JATP	J24185393		1-	B	f4
R 2113	CHIP RES.	680k	1/16W	5%	RMC1/16 684JATP	J24185684		1-	B	f5
R 2114	CHIP RES.	18k	1/16W	5%	RMC1/16 183JATP	J24185183		1-	A	B5
R 2115	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	A	B4
R 2116	CHIP RES.	3.9k	1/16W	5%	RMC1/16 392JATP	J24185392		1-	B	e3
R 2117	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	B	e3
R 2118	CHIP RES.	330k	1/16W	5%	RMC1/16 334JATP	J24185334		1-	B	e3
R 2119	CHIP RES.	2.2M	1/16W	5%	RMC1/16 225JATP	J24185225		1-	B	e3
R 2120	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	A	D3
R 2121	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	A	C4
R 2122	CHIP RES.	1.5M	1/16W	5%	RMC1/16 155JATP	J24185155		1-	A	C3
R 2123	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	A	C3
R 2124	CHIP RES.	39k	1/16W	5%	RMC1/16 393JATP	J24185393		1-	A	B4
R 2125	CHIP RES.	18k	1/16W	5%	RMC1/16 183JATP	J24185183		1-	A	B4
R 2126	CHIP RES.	22k	1/16W	5%	RMC1/16 223JATP	J24185223		1-	A	B4
R 2127	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	A	B4
R 2128	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	A	B4
R 2131	CHIP RES.	470k	1/16W	5%	RMC1/16 474JATP	J24185474		1-	A	A3
R 2132	CHIP RES.	220k	1/16W	5%	RMC1/16 224JATP	J24185224		1-	A	A3
R 2133	CHIP RES.	22k	1/16W	5%	RMC1/16 223JATP	J24185223		1-	A	A3
R 2134	CHIP RES.	2.2M	1/16W	5%	RMC1/16 225JATP	J24185225		1-	A	A3
R 2136	CHIP RES.	39k	1/16W	5%	RMC1/16 393JATP	J24185393		1-	A	C4
R 2137	CHIP RES.	330k	1/16W	5%	RMC1/16 334JATP	J24185334		1-	B	e5
R 2138	CHIP RES.	2.2M	1/16W	5%	RMC1/16 225JATP	J24185225		1-	B	e5
R 2139	CHIP RES.	470k	1/16W	5%	RMC1/16 474JATP	J24185474		1-	B	e5
R 2140	CHIP RES.	1M	1/16W	5%	RMC1/16 105JATP	J24185105		1-	A	A4
R 2141	CHIP RES.	2.2M	1/16W	5%	RMC1/16 225JATP	J24185225		1-	B	e4
R 2142	CHIP RES.	220k	1/16W	5%	RMC1/16 224JATP	J24185224		1-	B	e5
R 2143	CHIP RES.	470k	1/16W	5%	RMC1/16 474JATP	J24185474		1-	B	e4
R 2144	CHIP RES.	1k	1/16W	5%	RMC1/16 102JATP	J24185102		1-	B	d4
R 2145	CHIP RES.	180	1/16W	5%	RMC1/16 181JATP	J24185181		1-	B	d4
R 2146	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	A	A5
R 2147	CHIP RES.	47k	1/16W	5%	RMC1/16 473JATP	J24185473		1-	B	f3
R 2148	CHIP RES.	680k	1/16W	5%	RMC1/16 684JATP	J24185684		1-	A	D4
R 2149	CHIP RES.	180k	1/16W	5%	RMC1/16 184JATP	J24185184		1-	A	D3
R 2150	CHIP RES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104		1-	A	D3
R 2151	CHIP RES.	6.8k	1/16W	5%	RMC1/16 682JATP	J24185682		1-	A	D3

REF.	DESCRIPTION	VALUE	WV	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT.	SIDE.	LAY ADR.
R 2152	CHIP RES.	180k	1/16W	5%	RMC1/16 184JATP	J24185184		1-	A	C3
R 2153	CHIP RES.	82k	1/16W	5%	RMC1/16 823JATP	J24185823		1-	A	C5
R 2154	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	A	C5
R 2155	CHIP RES.	15k	1/16W	5%	RMC1/16 153JATP	J24185153		1-	A	C5
R 2156	CHIP RES.	12k	1/16W	5%	RMC1/16 123JATP	J24185123		1-	A	C5
R 2157	CHIP RES.	820k	1/16W	5%	RMC1/16 824JATP	J24185824		1-	A	C5
R 2158	CHIP RES.	1.2M	1/16W	5%	RMC1/16 125JATP	J24185125		1-	B	e5
R 2159	CHIP RES.	15k	1/16W	5%	RMC1/16 153JATP	J24185153		1-	A	C5
R 2160	CHIP RES.	1k	1/16W	5%	RMC1/16 102JATP	J24185102		1-	B	e5
R 2161	CHIP RES.	15k	1/16W	5%	RMC1/16 153JATP	J24185153		1-	B	e5
R 2162	CHIP RES.	2.7k	1/16W	5%	RMC1/16 272JATP	J24185272		1-	A	A3
R 2163	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000		1-	A	B3
R 2164	CHIP RES.	1k	1/16W	5%	RMC1/16 102JATP	J24185102		1-	A	B3
R 2165	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	A	A3
R 2166	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	A	A3
R 2167	CHIP RES.	330k	1/16W	5%	RMC1/16 334JATP	J24185334		1-	B	e5
R 2168	CHIP RES.	330k	1/16W	5%	RMC1/16 334JATP	J24185334		1-	B	d5
R 2169	CHIP RES.	1M	1/16W	5%	RMC1/16 105JATP	J24185105		1-	B	d5
R 2170	CHIP RES.	330k	1/16W	5%	RMC1/16 334JATP	J24185334		1-	B	d5
R 2171	CHIP RES.	5.6k	1/16W	5%	RMC1/16 562JATP	J24185562		1-	A	C4
R 2172	CHIP RES.	330k	1/16W	5%	RMC1/16 334JATP	J24185334		1-	B	e4
R 2173	CHIP RES.	1M	1/16W	5%	RMC1/16 105JATP	J24185105		1-	B	d4
R 2174	CHIP RES.	180k	1/16W	5%	RMC1/16 184JATP	J24185184		1-	B	d4
R 2175	CHIP RES.	180k	1/16W	5%	RMC1/16 184JATP	J24185184		1-	B	d4
R 2176	CHIP RES.	15k	1/16W	5%	RMC1/16 153JATP	J24185153		1-	A	A4
R 2177	CHIP RES.	47k	1/16W	5%	RMC1/16 473JATP	J24185473		1-	B	g4
R 2178	CHIP RES.	47k	1/16W	5%	RMC1/16 473JATP	J24185473		1-	B	g4
R 2179	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	A	A4
R 2180	CHIP RES.	47k	1/16W	5%	RMC1/16 473JATP	J24185473		1-	B	f4
R 2181	CHIP RES.	47k	1/16W	5%	RMC1/16 473JATP	J24185473		1-	B	f4
R 2182	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	B	f4
R 2183	CHIP RES.	4.7k	1/16W	5%	RMC1/16 472JATP	J24185472		1-	A	C5
R 2185	CHIP RES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104		1-	B	e5
R 2186	CHIP RES.	120k	1/16W	5%	RMC1/16 124JATP	J24185124		1-	B	e5
R 2187	CHIP RES.	120k	1/16W	5%	RMC1/16 124JATP	J24185124		1-	B	e5
R 2188	CHIP RES.	330k	1/16W	5%	RMC1/16 334JATP	J24185334		1-	B	d5
R 2189	CHIP RES.	47k	1/16W	5%	RMC1/16 473JATP	J24185473		1-	B	f2
R 2190	CHIP RES.	180k	1/16W	5%	RMC1/16 184JATP	J24185184		1-	B	d4
R 2191	CHIP RES.	1k	1/16W	5%	RMC1/16 102JATP	J24185102		1-	B	f2
R 2192	CHIP RES.	47k	1/16W	5%	RMC1/16 473JATP	J24185473		1-	A	A3
R 2193	CHIP RES.	47k	1/16W	5%	RMC1/16 473JATP	J24185473		1-	A	A3
R 2194	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	B	e5
R 2195	CHIP RES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104		1-	B	e5
R 2196	CHIP RES.	120k	1/16W	5%	RMC1/16 124JATP	J24185124		1-	B	e5
R 2197	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	A	C5
R 2198	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	A	C5
R 2199	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	A	C5
R 2200	CHIP RES.	15k	1/16W	5%	RMC1/16 153JATP	J24185153		1-	B	f2
R 2201	CHIP RES.	10	1/4W	5%	RMC1/4 100JATP	J24245100		1-	B	e2
R 2202	CHIP RES.	220k	1/16W	5%	RMC1/16 224JATP	J24185224		1-	B	f2
R 2203	CHIP RES.	15k	1/16W	5%	RMC1/16 153JATP	J24185153		1-	B	f2
R 2204	CHIP RES.	47k	1/16W	5%	RMC1/16 473JATP	J24185473		1-	B	f3
R 2205	CHIP RES.	47k	1/16W	5%	RMC1/16 473JATP	J24185473		1-	B	f3
R 2206	CHIP RES.	47k	1/16W	5%	RMC1/16 473JATP	J24185473		1-	B	f3
R 2207	CHIP RES.	47k	1/16W	5%	RMC1/16 473JATP	J24185473		1-	B	f3
R 2208	CHIP RES.	47k	1/16W	5%	RMC1/16 473JATP	J24185473		1-	B	f3
R 2209	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000		1-	B	f4
R 2210	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000		1-	A	B5
R 2212	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	A	C5
R 2214	CHIP RES.	4.7k	1/16W	5%	RMC1/16 472JATP	J24185472		1-	B	g4

MAIN Unit

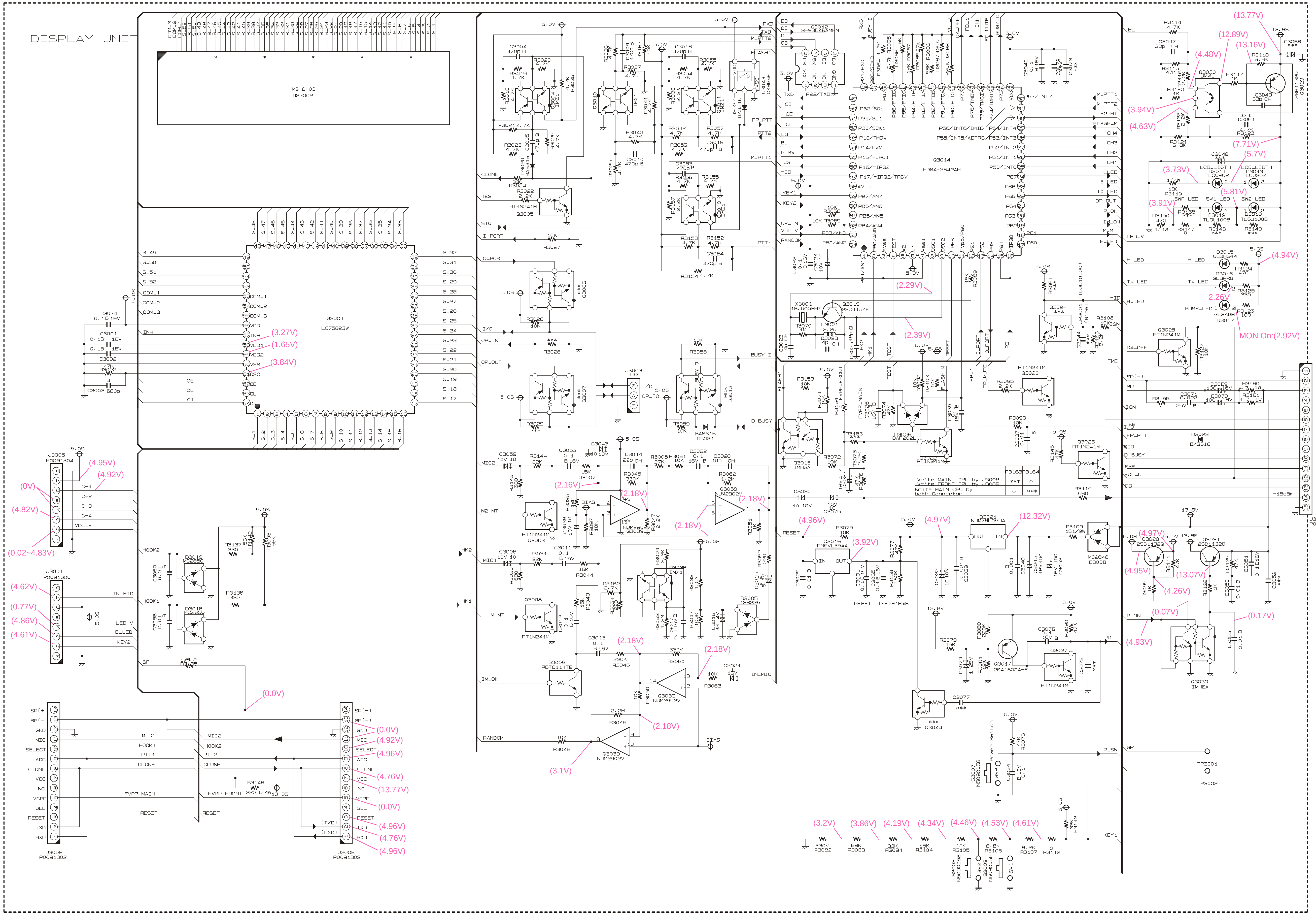
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R 2215	CHIP RES.	33k	1/16W	5%	RMC1/16 333JATP	J24185333		1-	B	g4
R 2216	CHIP RES.	47k	1/16W	5%	RMC1/16 473JATP	J24185473		1-	B	f3
R 2217	CHIP RES.	180k	1/16W	5%	RMC1/16 184JATP	J24185184		1-	B	e3
R 2218	CHIP RES.	33k	1/16W	5%	RMC1/16 333JATP	J24185333		1-	B	f3
R 2219	CHIP RES.	330	1/16W	5%	RMC1/16 331JATP	J24185331		1-	B	f1
R 2220	CHIP RES.	1k	1/16W	5%	RMC1/16 102JATP	J24185102		1-	A	B3
R 2221	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	B	e3
R 2222	CHIP RES.	4.7k	1/16W	5%	RMC1/16 472JATP	J24185472		1-	A	B3
R 2224	CHIP RES.	47k	1/16W	5%	RMC1/16 473JATP	J24185473		1-	A	B3
R 2225	CHIP RES.	1k	1/16W	5%	RMC1/16 102JATP	J24185102		1-	A	A3
R 2226	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	A	B5
R 2227	CHIP RES.	150k	1/16W	5%	RMC1/16 154JATP	J24185154		1-	A	B5
R 2228	CHIP RES.	4.7k	1/16W	5%	RMC1/16 472JATP	J24185472		1-	B	f5
R 2229	CHIP RES.	1M	1/16W	5%	RMC1/16 105JATP	J24185105		1-	A	C4
R 2230	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000		1-	A	A4
R 2231	CHIP RES.	47k	1/16W	5%	RMC1/16 473JATP	J24185473		1-	A	A4
R 2232	CHIP RES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104		1-	B	g5
R 2233	CHIP RES.	12k	1/16W	5%	RMC1/16 123JATP	J24185123		1-	B	g4
R 2234	CHIP RES.	120k	1/16W	5%	RMC1/16 124JATP	J24185124		1-	A	A5
R 2235	CHIP RES.	47k	1/16W	5%	RMC1/16 473JATP	J24185473		1-	B	f5
R 2236	CHIP RES.	27k	1/16W	5%	RMC1/16 273JATP	J24185273		1-	B	f4
R 2252	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	A	C4
R 2254	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	B	g5
R 2255	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000		1-	B	f1
R 2259	CHIP RES.	27k	1/16W	5%	RMC1/16 273JATP	J24185273		1-	B	f4
R 2262	CHIP RES.	470k	1/16W	5%	RMC1/16 474JATP	J24185474		1-	B	g5
R 2263	CHIP RES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104		1-	B	g5
R 2264	CHIP RES.	470k	1/16W	5%	RMC1/16 474JATP	J24185474		1-	B	g5
R 2266	CHIP RES.	6.8k	1/16W	5%	RMC1/16 682JATP	J24185682		1-	B	g4
R 2267	CHIP RES.	6.8k	1/16W	5%	RMC1/16 682JATP	J24185682		1-	B	f4
R 2270	CHIP RES.	18k	1/16W	5%	RMC1/16 183JATP	J24185183		1-	A	A5
R 2271	CHIP RES.	18k	1/16W	5%	RMC1/16 183JATP	J24185183		1-	A	A5
R 2273	CHIP RES.	4.7k	1/16W	5%	RMC1/16 472JATP	J24185472		1-	A	A5
R 2274	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000		1-	A	A5
R 2275	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000		1-	A	A3
R 2277	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000		1-	B	f4
R 2278	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000		1-	B	f4
R 2280	CHIP RES.	56k	1/16W	5%	RMC1/16 563JATP	J24185563		1-	B	e3
R 2281	CHIP RES.	56k	1/16W	5%	RMC1/16 563JATP	J24185563		1-	B	e3
R 2282	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	B	e3
R 2283	CHIP RES.	47k	1/16W	5%	RMC1/16 473JATP	J24185473		1-	B	e3
R 2284	CHIP RES.	68k	1/16W	5%	RMC1/16 683JATP	J24185683		1-	B	e3
R 2285	CHIP RES.	18k	1/16W	5%	RMC1/16 183JATP	J24185183		1-	A	C3
R 2286	CHIP RES.	18k	1/16W	5%	RMC1/16 183JATP	J24185183		1-	A	C3
R 2287	CHIP RES.	33k	1/16W	5%	RMC1/16 333JATP	J24185333		1-	B	e3
R 2288	CHIP RES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104		1-	B	e3
R 2289	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	B	e3
R 2290	CHIP RES.	270k	1/16W	5%	RMC1/16 274JATP	J24185274		1-	B	e3
R 2291	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	B	e3
R 2292	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	B	e3
R 2293	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	B	e3
T 1001	COIL WIDE-TRANS.				950812004	L0022479		1-	A	E3
T 1002	COIL WIDE-TRANS.				950812004	L0022479		1-	A	F4
T 1003	COIL WIDE-TRANS.				950812004	L0022479		1-	A	F3
T 1004	COIL WIDE-TRANS.				990812213	L0022619		1-	A	G3
TH1001	THERMISTOR				TBPS1R104K475H5Q	G9090069		1-	B	a2
VR1001	POT.	10k			EVN-5ESX50B14	J51811103		1-	A	E5
X 1001	XTAL OSC				TTS12V 14.5MHZ	H9500630		1-	A	E5
X 2001	XTAL 92SMX(A)	16MHz			16.000MHZ	H0103252		1-	A	A4
XF1001	XTAL FILTER				HDD5205 43.95M	H1102365		1-	A	G4

REF.	DESCRIPTION	VALUE	WV	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT.	SIDE.	LAY ADR.
XF1002	XTAL FILTER				HDD5205 43.95M	H1102365		1-	A	G5
XF1003	XTAL FILTER				HDD5204 43.95M	H1102366		1-	A	G4
XF1004	XTAL FILTER				HDD5204 43.95M	H1102366		1-	A	G4
	SHIELD CASE				(A)	RA0073900		1-		
	SHIELD CASE					RA0414900		1-		
	SHIELD CASE VCO					RA0208100		1-		
	LEAF SPRING					R0140031		1-		

MAIN Unit

Note:

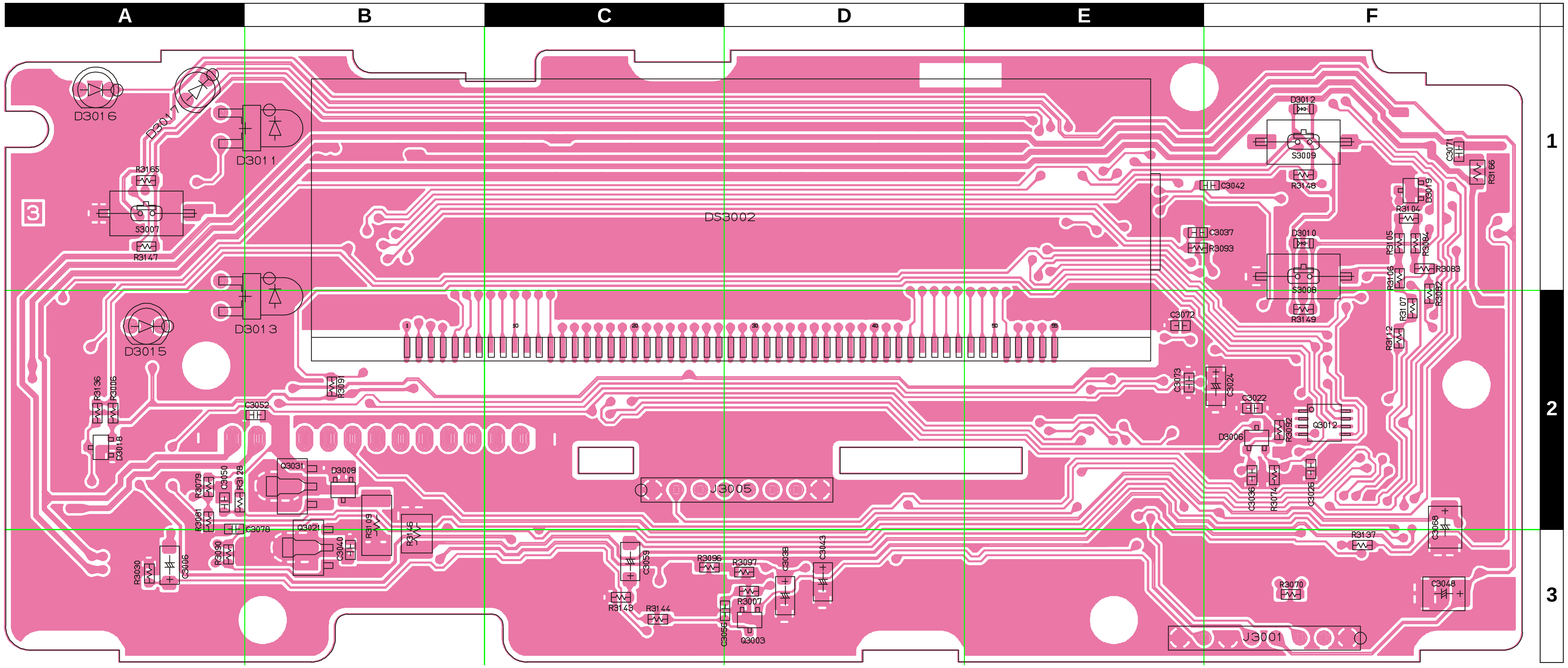
Circuit Diagram



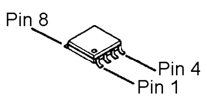
DISPLAY Unit

Note:

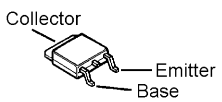
Parts Layout



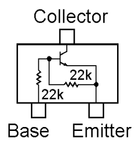
Side A



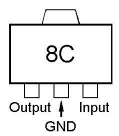
S-93C46AMFN-TB (Q3012)



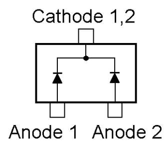
2SB1132Q (BA) (Q3031)



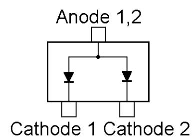
RT1N241M (N2) (Q3003)



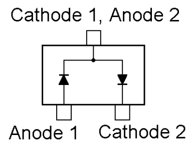
NJM78L05UA (8C) (Q3021)



MC2848 (A6) (D3008)



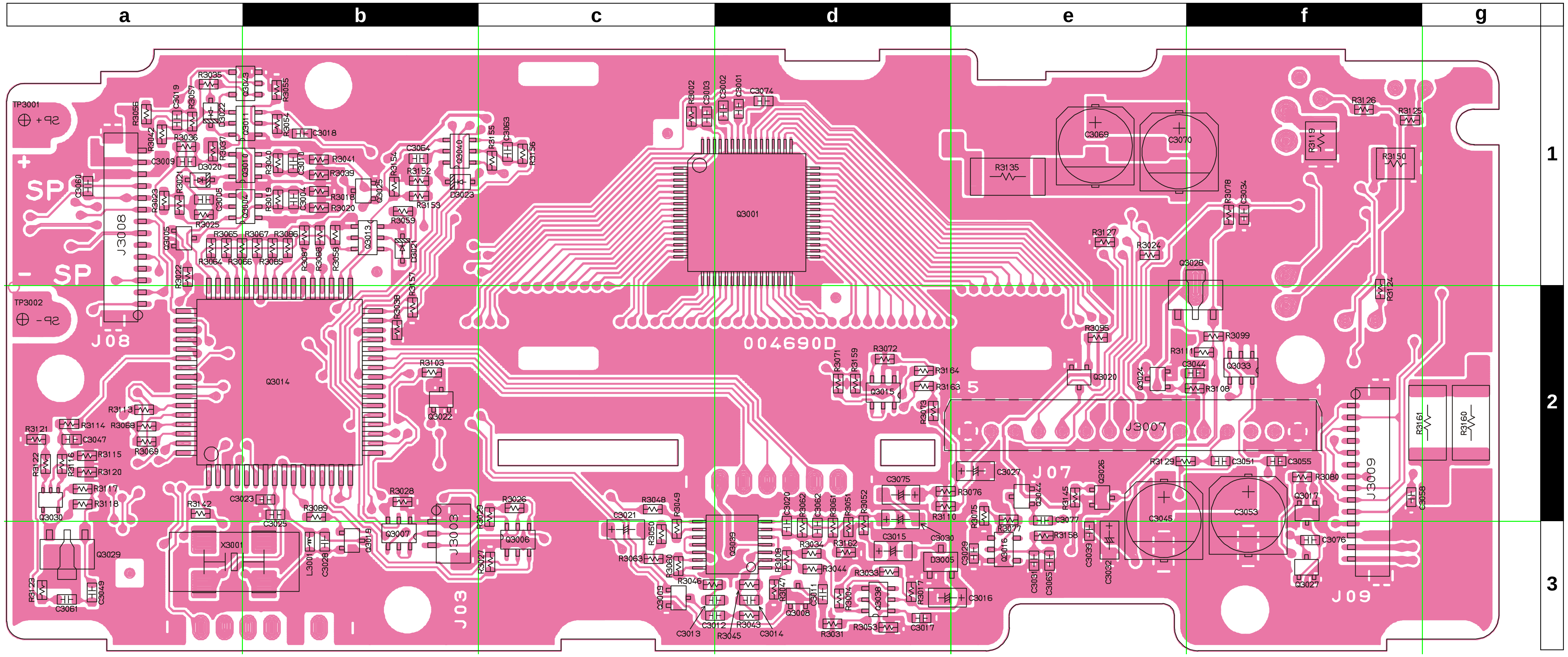
DAP202U (P) (D3006)



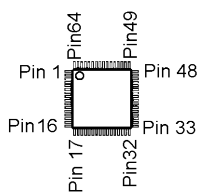
MC2850 (A7) (D3018, 3019)

DISPLAY Unit

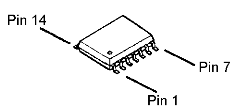
Parts Layout



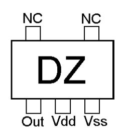
Side B



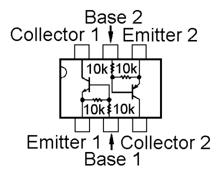
HD64F3642AH
(Q3014)



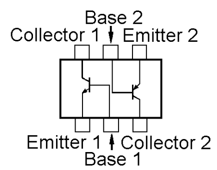
NJM2902V
(Q3039)



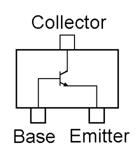
S-80735SN (DZ)
(Q3016)



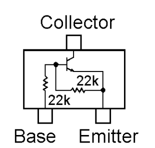
IMD3 (D3)
(Q3013)



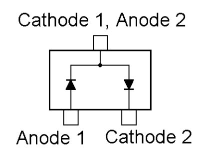
IMZ1 (Z1)
(Q3004, 3011, 3040)
IMX1 (X1)
(Q3010, 3038)



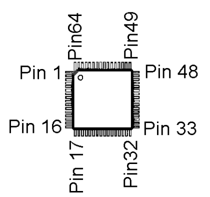
2SC4154E (LE)
(Q3019)



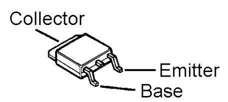
RT1N241M (N2)
(Q3005, 3008, 3009
3020, 3022, 3024
3025, 3026, 3027)



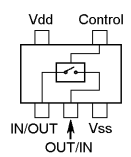
1SS226 (C3)
(D3005)



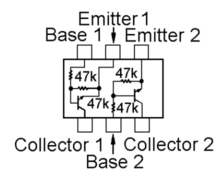
LC75823W
(Q3001)



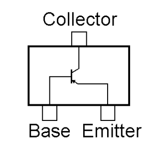
2SB1132Q (BA)
(Q3028, 3029)



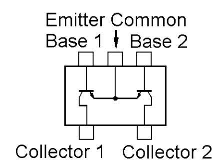
TC4S66F (C9)
(Q3043)



IMH6 (H6)
(Q3015, 3033)



2SA1602A (MF)
(Q3017)



UMW1 (W1)
(Q3030)

Parts List

REF.	DESCRIPTION	VALUE	WV	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT.	SIDE.	LAY ADR.
					*** DISPLAY UNIT ***					
	PCB with Components					CB1980001				
	Printed Circuit Board					FR004690D		1-		
C 3001	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	B	d1
C 3002	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	B	d1
C 3003	CHIP CAP.	680pF	50V	B	GRM39B681M50PT	K22174807		1-	B	c1
C 3004	CHIP CAP.	470pF	50V	B	ECUV1H471KBV	K22179610		1-	B	b1
C 3005	CHIP CAP.	470pF	50V	B	ECUV1H471KBV	K22179610		1-	B	a1
C 3006	CHIP TA.CAP.	10uF	10V		TEMSVA1A106M-8R	K78100028		1-	A	A3
C 3009	CHIP CAP.	470pF	50V	B	ECUV1H471KBV	K22179610		1-	B	a1
C 3010	CHIP CAP.	470pF	50V	B	ECUV1H471KBV	K22179610		1-	B	b1
C 3011	CHIP CAP.	0.47uF	10V	BJ	LMK107BJ474KA-T	K22104803		1-	B	d3
C 3012	CHIP CAP.	1uF	10V	F	GRM39F105Z10PT	K22105001		1-	B	d3
C 3013	CHIP CAP.	1uF	10V	F	GRM39F105Z10PT	K22105001		1-	B	d3
C 3014	CHIP CAP.	220pF	50V	CH	GRM39CH221J50PT	K22174243		1-	B	d3
C 3015	CHIP TA.CAP.	2.2uF	6.3V		TESVA0J225M1-8R	K78080009		1-	B	d3
C 3016	CHIP TA.CAP.	33uF	4V		TEMSVA0G336M-8R	K78060036		1-	B	d3
C 3017	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	B	d3
C 3018	CHIP CAP.	470pF	50V	B	ECUV1H471KBV	K22179610		1-	B	b1
C 3019	CHIP CAP.	470pF	50V	B	ECUV1H471KBV	K22179610		1-	B	a1
C 3020	CHIP CAP.	10pF	50V	CH	GRM39CH100D50PT	K22174211		1-	B	d3
C 3021	CHIP TA.CAP.	1uF	16V		TMCSA1C105MTR	K78120023		1-	B	c3
C 3022	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	A	F2
C 3023	CHIP CAP.	4pF	50V	CH	GRM39CH040C50PT	K22174205		1-	B	b2
C 3024	CHIP TA.CAP.	10uF	10V		TEMSVA1A106M-8R	K78100028		1-	A	F2
C 3025	CHIP CAP.	18pF	50V	CH	GRM39CH180J50PT	K22174217		1-	B	b2
C 3026	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	A	F2
C 3027	CHIP TA.CAP.	4.7uF	16V		TEMSVA1C475M-8R	K78120031		1-	B	e2
C 3028	CHIP CAP.	4pF	50V	CH	GRM39CH040C50PT	K22174205		1-	B	b3
C 3029	CHIP CAP.	0.01uF	50V	B	GRM39B103M50PT	K22174823		1-	B	e3
C 3030	CHIP TA.CAP.	10uF	10V		TEMSVA1A106M-8R	K78100028		1-	B	d2
C 3031	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	B	e3
C 3032	CHIP TA.CAP.	10uF	10V		TEMSVA1A106M-8R	K78100028		1-	B	e3
C 3034	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	B	f1
C 3036	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	A	F2
C 3037	CHIP CAP.	0.01uF	50V	B	GRM39B103M50PT	K22174823		1-	A	E1
C 3038	CHIP TA.CAP.	10uF	10V		TEMSVA1A106M-8R	K78100028		1-	A	D3
C 3039	CHIP CAP.	0.001uF	50V	B	GRM39B102K50PT	K22174821		1-	B	e3
C 3040	CHIP CAP.	0.001uF	50V	B	GRM39B102K50PT	K22174821		1-	A	B3
C 3042	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	A	F1
C 3043	CHIP TA.CAP.	10uF	10V		TEMSVA1A106M-8R	K78100028		1-	A	D3
C 3045	AL.ELECTRO.CAP.	100uF	16V		ECEV1CA101WP	K48120012		1-	B	e2
C 3047	CHIP CAP.	33pF	50V	CH	GRM39CH330J50PT	K22174223		1-	B	a2
C 3049	CHIP CAP.	33pF	50V	CH	GRM39CH330J50PT	K22174223		1-	B	a3
C 3050	CHIP CAP.	0.01uF	50V	B	GRM39B103M50PT	K22174823		1-	A	A2
C 3051	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	B	f2
C 3053	AL.ELECTRO.CAP.	100uF	16V		ECEV1CA101WP	K48120012		1-	B	f2
C 3055	CHIP CAP.	0.01uF	50V	B	GRM39B103M50PT	K22174823		1-	B	f2
C 3056	CHIP CAP.	0.47uF	10V	BJ	LMK107BJ474KA-T	K22104803		1-	A	D3
C 3058	CHIP CAP.	0.01uF	50V	B	GRM39B103M50PT	K22174823		1-	B	f2
C 3059	CHIP TA.CAP.	10uF	10V		TEMSVA1A106M-8R	K78100028		1-	A	C3
C 3060	CHIP CAP.	0.01uF	50V	B	GRM39B103M50PT	K22174823		1-	B	a1
C 3062	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	B	d3
C 3063	CHIP CAP.	470pF	50V	B	ECUV1H471KBV	K22179610		1-	B	c1
C 3064	CHIP CAP.	470pF	50V	B	ECUV1H471KBV	K22179610		1-	B	b1
C 3065	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	B	e3
C 3069	AL.ELECTRO.CAP.	100uF	16V		ECEV1CA101WP	K48120012		1-	B	e1
C 3070	AL.ELECTRO.CAP.	100uF	16V		ECEV1CA101WP	K48120012		1-	B	e1
C 3071	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	A	G1
C 3074	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	B	d1

DISPLAY Unit

REF.	DESCRIPTION	VALUE	WV	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT.	SIDE.	LAY ADR.
C 3075	CHIP TA.CAP.	10uF	10V		TEMSVA1A106M-8R	K78100028		1-	B	d2
C 3076	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	B	f3
C 3079	CHIP TA.CAP.	1uF	25V		TEMSVA1E105M-8R	K78140013		1-		
D 3005	DIODE				1SS226 TE85R	G2070003		1-	B	d3
D 3006	DIODE				DAP202U T106	G2070160		1-	A	F2
D 3008	DIODE				MC2848-T11-1	G2070694		1-	A	B2
D 3010	LED				TLOU1008(T04)	G2070796		1-	A	F1
D 3011	LED				TLOU262	G2090763		1-	A	A1
D 3012	LED				TLOU1008(T04)	G2070796		1-	A	F1
D 3013	LED				TLOU262	G2090763		1-	A	A2
D 3015	LED				GL3HS44	G2090675		1-	A	A2
D 3016	LED				GL3PR8	G2090433		1-	A	A1
D 3017	LED				GL3KG8	G2090432		1-	A	A1
D 3018	DIODE				MC2850-T11-1	G2070704		1-	A	A2
D 3019	DIODE				MC2850-T11-1	G2070704		1-	A	F1
D 3020	DIODE				BAS316	G2070716		1-	B	a1
D 3021	DIODE				BAS316	G2070716		1-	B	b1
D 3022	DIODE				BAS316	G2070716		1-	B	a1
D 3023	DIODE				BAS316	G2070716		1-	B	b1
DS3002	LCD				MS-6403	G6090140		1-	A	D1
J 3001	CONNECTOR				9210B-1-08Z696-T	P0091300		1-	A	F3
J 3005	CONNECTOR				9210B-1-08Z707-T	P0091304		1-	A	C2
J 3007	CONNECTOR				SB20-15WS	P0091093		1-	B	f2
J 3008	CONNECTOR				BM14B-SRSS-TBT	P0091302		1-	B	a1
J 3009	CONNECTOR				BM14B-SRSS-TBT	P0091302		1-	B	f2
L 3001	M.RFC	2.2uH			LK1608 2R2K-T	L1690634		1-	B	b3
Q 3001	IC				LC75823W	G1092941		1-	B	d1
Q 3003	TRANSISTOR				DTC323TK T146	G3070042		1-	A	D3
Q 3004	TRANSISTOR				IMZ1 T108	G3070025		1-	B	b1
Q 3005	TRANSISTOR				RT1N241M-T11-1	G3070249		1-	B	a1
Q 3008	TRANSISTOR				DTC323TK T146	G3070042		1-	B	d3
Q 3009	TRANSISTOR				DTC323TK T146	G3070042		1-	B	c3
Q 3010	TRANSISTOR				IMX1 T110	G3070024		1-	B	b1
Q 3011	TRANSISTOR				IMZ1 T108	G3070025		1-	B	b1
Q 3012	IC				S-93C46AMFN-TB	G1093147		1-	A	F2
Q 3013	TRANSISTOR				IMD3 T108	G3070053		1-	B	b1
Q 3014*	IC*				HD64F3642AH*	G1093228*		1-	B	b2
Q 3015	TRANSISTOR				IMH6A T108	G3070066		1-	B	d2
Q 3016	IC				RN5VL35AA-TR	G1091666		1-	B	e3
Q 3017	TRANSISTOR				2SA1602A-T11-1F	G3116028F		1-	B	f2
Q 3019	TRANSISTOR				2SC4154-T11-1E	G3341548E		1-	B	b3
Q 3020	TRANSISTOR				RT1N241M-T11-1	G3070249		1-	B	e2
Q 3021	IC				NJM78L05UA TE1	G1091325		1-	A	B3
Q 3022	TRANSISTOR				RT1N241M-T11-1	G3070249		1-	B	b2
Q 3025	TRANSISTOR				RT1N241M-T11-1	G3070249		1-	B	b1
Q 3026	TRANSISTOR				RT1N241M-T11-1	G3070249		1-	B	e2
Q 3027	TRANSISTOR				RT1N241M-T11-1	G3070249		1-	B	f3
Q 3028	TRANSISTOR				2SB1132 T100 Q	G3211327Q		1-	B	f2
Q 3029	TRANSISTOR				2SB1132 T100 Q	G3211327Q		1-	B	a3
Q 3030	TRANSISTOR				UMW1 TR	G3070078		1-	B	a2
Q 3031	TRANSISTOR				2SB1132 T100 Q	G3211327Q		1-	A	B2
Q 3033	TRANSISTOR				IMH6A T108	G3070066		1-	B	f2
Q 3038	TRANSISTOR				IMX1 T110	G3070024		1-	B	d3
Q 3039	IC				NJM2902V-TE1	G1091679		1-	B	d3
Q 3040	TRANSISTOR				IMZ1 T108	G3070025		1-	B	b1
Q 3043	IC				TC4S66F TE85R	G1090893		1-	B	b1
R 3002	CHIP RES.	47k	1/16W	5%	RMC1/16 473JATP	J24185473		1-	B	c1
R 3004	CHIP RES.	2.2k	1/16W	5%	RMC1/16 222JATP	J24185222		1-	B	d3
R 3006	CHIP RES.	56k	1/16W	5%	RMC1/16 563JATP	J24185563		1-	A	A2
R 3007	CHIP RES.	4.7k	1/16W	5%	RMC1/16 472JATP	J24185472		1-	A	D3

* Please contact VERTEX STANDARD.

REF.	DESCRIPTION	VALUE	WV	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT.	SIDE.	LAY ADR.
R 3008	CHIP RES.	27k	1/16W	5%	RMC1/16 273JATP	J24185273		1-	B	d3
R 3017	CHIP RES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104		1-	B	d3
R 3018	CHIP RES.	4.7k	1/16W	5%	RMC1/16 472JATP	J24185472		1-	B	b1
R 3019	CHIP RES.	4.7k	1/16W	5%	RMC1/16 472JATP	J24185472		1-	B	b1
R 3020	CHIP RES.	4.7k	1/16W	5%	RMC1/16 472JATP	J24185472		1-	B	b1
R 3021	CHIP RES.	4.7k	1/16W	5%	RMC1/16 472JATP	J24185472		1-	B	a1
R 3022	CHIP RES.	2.2k	1/16W	5%	RMC1/16 222JATP	J24185222		1-	B	a1
R 3023	CHIP RES.	4.7k	1/16W	5%	RMC1/16 472JATP	J24185472		1-	B	a1
R 3024	CHIP RES.	330	1/16W	5%	RMC1/16 331JATP	J24185331		1-	B	e1
R 3025	CHIP RES.	4.7k	1/16W	5%	RMC1/16 472JATP	J24185472		1-	B	a1
R 3026	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	B	c2
R 3027	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	B	c3
R 3030	CHIP RES.	680	1/16W	5%	RMC1/16 681JATP	J24185681		1-	A	A3
R 3031	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000		1-	B	d3
R 3033	CHIP RES.	1.5M	1/16W	5%	RMC1/16 155JATP	J24185155		1-	B	d3
R 3034	CHIP RES.	220	1/16W	5%	RMC1/16 221JATP	J24185221		1-	B	d3
R 3035	CHIP RES.	4.7k	1/16W	5%	RMC1/16 472JATP	J24185472		1-	B	a1
R 3036	CHIP RES.	4.7k	1/16W	5%	RMC1/16 472JATP	J24185472		1-	B	a1
R 3037	CHIP RES.	4.7k	1/16W	5%	RMC1/16 472JATP	J24185472		1-	B	a1
R 3038	CHIP RES.	2.2k	1/16W	5%	RMC1/16 222JATP	J24185222		1-	B	b2
R 3039	CHIP RES.	4.7k	1/16W	5%	RMC1/16 472JATP	J24185472		1-	B	b1
R 3040	CHIP RES.	4.7k	1/16W	5%	RMC1/16 472JATP	J24185472		1-	B	b1
R 3041	CHIP RES.	4.7k	1/16W	5%	RMC1/16 472JATP	J24185472		1-	B	b1
R 3042	CHIP RES.	4.7k	1/16W	5%	RMC1/16 472JATP	J24185472		1-	B	a1
R 3043	CHIP RES.	15k	1/16W	5%	RMC1/16 153JATP	J24185153		1-	B	d3
R 3044	CHIP RES.	4.7k	1/16W	5%	RMC1/16 472JATP	J24185472		1-	B	d3
R 3045	CHIP RES.	39k	1/16W	5%	RMC1/16 393JATP	J24185393		1-	B	d3
R 3046	CHIP RES.	22k	1/16W	5%	RMC1/16 223JATP	J24185223		1-	B	c3
R 3047	CHIP RES.	2.2k	1/16W	5%	RMC1/16 222JATP	J24185222		1-	B	d3
R 3049	CHIP RES.	2.2M	1/16W	5%	RMC1/16 225JATP	J24185225		1-	B	c3
R 3051	CHIP RES.	1k	1/16W	5%	RMC1/16 102JATP	J24185102		1-	B	d3
R 3052	CHIP RES.	220	1/16W	5%	RMC1/16 221JATP	J24185221		1-	B	d3
R 3053	CHIP RES.	1.2M	1/16W	5%	RMC1/16 125JATP	J24185125		1-	B	d3
R 3054	CHIP RES.	4.7k	1/16W	5%	RMC1/16 472JATP	J24185472		1-	B	b1
R 3055	CHIP RES.	4.7k	1/16W	5%	RMC1/16 472JATP	J24185472		1-	B	b1
R 3056	CHIP RES.	4.7k	1/16W	5%	RMC1/16 472JATP	J24185472		1-	B	a1
R 3057	CHIP RES.	4.7k	1/16W	5%	RMC1/16 472JATP	J24185472		1-	B	a1
R 3058	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	B	b1
R 3059	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	B	b1
R 3060	CHIP RES.	330k	1/16W	5%	RMC1/16 334JATP	J24185334		1-	B	c3
R 3061	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	B	d3
R 3062	CHIP RES.	1.2M	1/16W	5%	RMC1/16 125JATP	J24185125		1-	B	d3
R 3063	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	B	c3
R 3064	CHIP RES.	1.2k	1/16W	5%	RMC1/16 122JATP	J24185122		1-	B	a1
R 3065	CHIP RES.	2.7k	1/16W	5%	RMC1/16 272JATP	J24185272		1-	B	a1
R 3066	CHIP RES.	5.6k	1/16W	5%	RMC1/16 562JATP	J24185562		1-	B	a1
R 3067	CHIP RES.	12k	1/16W	5%	RMC1/16 123JATP	J24185123		1-	B	b1
R 3068	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	B	a2
R 3069	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	B	a2
R 3070	CHIP RES.	1M	1/16W	5%	RMC1/16 105JATP	J24185105		1-	A	F3
R 3071	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	B	d2
R 3072	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	B	d2
R 3073	CHIP RES.	2.2k	1/16W	5%	RMC1/16 222JATP	J24185222		1-	B	d2
R 3074	CHIP RES.	47k	1/16W	5%	RMC1/16 473JATP	J24185473		1-	A	F2
R 3075	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	B	e2
R 3076	CHIP RES.	47k	1/16W	5%	RMC1/16 473JATP	J24185473		1-	B	d2
R 3077	CHIP RES.	47k	1/16W	5%	RMC1/16 473JATP	J24185473		1-	B	e2
R 3078	CHIP RES.	47k	1/16W	5%	RMC1/16 473JATP	J24185473		1-	B	f1
R 3079	CHIP RES.	15k	1/16W	5%	RMC1/16 153JATP	J24185153		1-	A	A2
R 3080	CHIP RES.	220k	1/16W	5%	RMC1/16 224JATP	J24185224		1-	B	f2

DISPLAY Unit

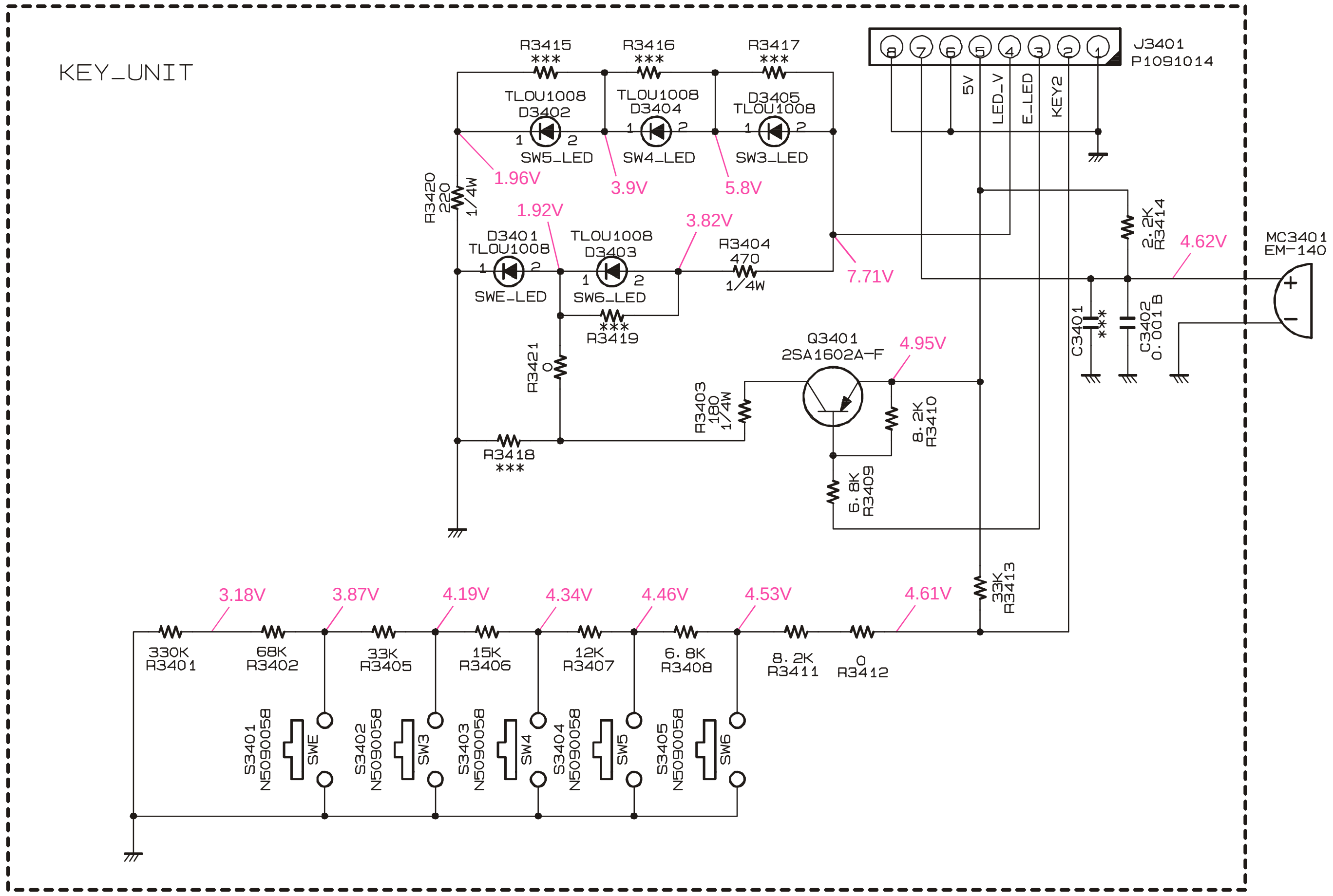
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R 3081	CHIP RES.	12k	1/16W	5%	RMC1/16 123JATP	J24185123		1-	A	A2
R 3082	CHIP RES.	330k	1/16W	5%	RMC1/16 334JATP	J24185334		1-	A	F2
R 3083	CHIP RES.	68k	1/16W	5%	RMC1/16 683JATP	J24185683		1-	A	F1
R 3084	CHIP RES.	33k	1/16W	5%	RMC1/16 333JATP	J24185333		1-	A	F1
R 3085	CHIP RES.	27k	1/16W	5%	RMC1/16 273JATP	J24185273		1-	B	b1
R 3086	CHIP RES.	56k	1/16W	5%	RMC1/16 563JATP	J24185563		1-	B	b1
R 3087	CHIP RES.	120k	1/16W	5%	RMC1/16 124JATP	J24185124		1-	B	b1
R 3088	CHIP RES.	220k	1/16W	5%	RMC1/16 224JATP	J24185224		1-	B	b1
R 3089	CHIP RES.	15k	1/16W	5%	RMC1/16 153JATP	J24185153		1-	B	b2
R 3090	CHIP RES.	47k	1/16W	5%	RMC1/16 473JATP	J24185473		1-	A	A3
R 3092	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	A	F2
R 3093	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	A	E1
R 3095	CHIP RES.	2.2k	1/16W	5%	RMC1/16 222JATP	J24185222		1-	B	e2
R 3096	CHIP RES.	12k	1/16W	5%	RMC1/16 123JATP	J24185123		1-	A	C3
R 3097	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	A	D3
R 3099	CHIP RES.	1k	1/16W	5%	RMC1/16 102JATP	J24185102		1-	B	f2
R 3103	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	B	b2
R 3104	CHIP RES.	15k	1/16W	5%	RMC1/16 153JATP	J24185153		1-	A	F1
R 3105	CHIP RES.	12k	1/16W	5%	RMC1/16 123JATP	J24185123		1-	A	F1
R 3106	CHIP RES.	6.8k	1/16W	5%	RMC1/16 682JATP	J24185682		1-	A	F1
R 3107	CHIP RES.	8.2k	1/16W	5%	RMC1/16 822JATP	J24185822		1-	A	F2
R 3108	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	B	f2
R 3109	CHIP RES.	15	1/2W	5%	RMC1/2 150JCTP	J24275150		1-	A	B2
R 3110	CHIP RES.	560	1/16W	5%	RMC1/16 561JATP	J24185561		1-	B	d2
R 3111	CHIP RES.	47k	1/16W	5%	RMC1/16 473JATP	J24185473		1-	B	f2
R 3112	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000		1-	A	F2
R 3113	CHIP RES.	33k	1/16W	5%	RMC1/16 333JATP	J24185333		1-	B	a2
R 3114	CHIP RES.	4.7k	1/16W	5%	RMC1/16 472JATP	J24185472		1-	B	a2
R 3115	CHIP RES.	47k	1/16W	5%	RMC1/16 473JATP	J24185473		1-	B	a2
R 3116	CHIP RES.	2.2k	1/16W	5%	RMC1/16 222JATP	J24185222		1-	B	a2
R 3117	CHIP RES.	1k	1/16W	5%	RMC1/16 102JATP	J24185102		1-	B	a2
R 3118	CHIP RES.	6.8k	1/16W	5%	RMC1/16 682JATP	J24185682		1-	B	a2
R 3119	CHIP RES.	180	1/4W	5%	RMC1/4 181JATP	J24245181		1-	B	f1
R 3120	CHIP RES.	1k	1/16W	5%	RMC1/16 102JATP	J24185102		1-	B	a2
R 3121	CHIP RES.	6.8k	1/16W	5%	RMC1/16 682JATP	J24185682		1-	B	a2
R 3122	CHIP RES.	2.2k	1/16W	5%	RMC1/16 222JATP	J24185222		1-	B	a2
R 3123	CHIP RES.	4.7k	1/16W	5%	RMC1/16 472JATP	J24185472		1-	B	a3
R 3124	CHIP RES.	470	1/16W	5%	RMC1/16 471JATP	J24185471		1-	B	f2
R 3125	CHIP RES.	330	1/16W	5%	RMC1/16 331JATP	J24185331		1-	B	f1
R 3126	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101		1-	B	f1
R 3127	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	B	e1
R 3128	CHIP RES.	1k	1/16W	5%	RMC1/16 102JATP	J24185102		1-	A	A2
R 3129	CHIP RES.	47k	1/16W	5%	RMC1/16 473JATP	J24185473		1-	B	e2
R 3135	CHIP RES.	8.2	1W	5%	RMC1 8R2JTE	J24305829		1-	B	e1
R 3136	CHIP RES.	330	1/16W	5%	RMC1/16 331JATP	J24185331		1-	A	A2
R 3137	CHIP RES.	330	1/16W	5%	RMC1/16 331JATP	J24185331		1-	A	F3
R 3142	CHIP RES.	56k	1/16W	5%	RMC1/16 563JATP	J24185563		1-	B	a2
R 3143	CHIP RES.	680	1/16W	5%	RMC1/16 681JATP	J24185681		1-	A	C3
R 3144	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000		1-	A	C3
R 3145	CHIP RES.	47k	1/16W	5%	RMC1/16 473JATP	J24185473		1-	B	e2
R 3146	CHIP RES.	220	1/4W	5%	RMC1/4 221JATP	J24245221		1-	A	B3
R 3147	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000		1-	A	A1
R 3150	CHIP RES.	470	1/4W	5%	RMC1/4 471JATP	J24245471		1-	B	f1
R 3152	CHIP RES.	4.7k	1/16W	5%	RMC1/16 472JATP	J24185472		1-	B	b1
R 3153	CHIP RES.	4.7k	1/16W	5%	RMC1/16 472JATP	J24185472		1-	B	b1
R 3154	CHIP RES.	4.7k	1/16W	5%	RMC1/16 472JATP	J24185472		1-	B	b1
R 3155	CHIP RES.	4.7k	1/16W	5%	RMC1/16 472JATP	J24185472		1-	B	c1
R 3156	CHIP RES.	4.7k	1/16W	5%	RMC1/16 472JATP	J24185472		1-	B	c1
R 3157	CHIP RES.	2.2k	1/16W	5%	RMC1/16 222JATP	J24185222		1-	B	b2
R 3158	CHIP RES.	180k	1/16W	5%	RMC1/16 184JATP	J24185184		1-	B	e3

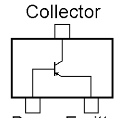
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R 3159	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	B	d2
R 3160	CHIP RES.	4.7	1W	5%	RMC1 4R7JTE	J24305479		1-	B	g2
R 3161	CHIP RES.	4.7	1W	5%	RMC1 4R7JTE	J24305479		1-	B	g2
R 3162	CHIP RES.	2.7k	1/16W	5%	RMC1/16 272JATP	J24185272		1-	B	d3
R 3164	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000		1-	B	d2
R 3166	CHIP RES.	1	1/10W	5%	RMC1/10T 1R0J	J24205010		1-	A	G1
R 3167	CARBON FILM RES.	10k	1/6W	5%	RD16PJ103 10K	J01225103		1-		
R 3168	CHIP RES.	8.2k	1/16W	5%	RMC1/16 822JATP	J24185822		1-		
S 3007	TACT SWITCH				SKQDAB	N5090058		1-	A	A1
S 3008	TACT SWITCH				SKQDAB	N5090058		1-	A	F1
S 3009	TACT SWITCH				SKQDAB	N5090058		1-	A	F1
X 3001	XTAL 92SMX(A)	16MHz			16.000MHZ	H0103252		1-	B	a3
	LIGHT GUIDE					RA0252300		1-		
	REFLECTOR SHEET					RA0252700		1-		
	DIFFUSER SHEET					RA0252800		1-		
	RUBBER CONNECTOR					RA0252900		1-		
	LCD HOLDER					RA0253000		1-		
	LED SPACER				LH-5-6	S6000239		1-		
	LIGHT SHEET					RA0276500		1-		

DISPLAY Unit

Note:

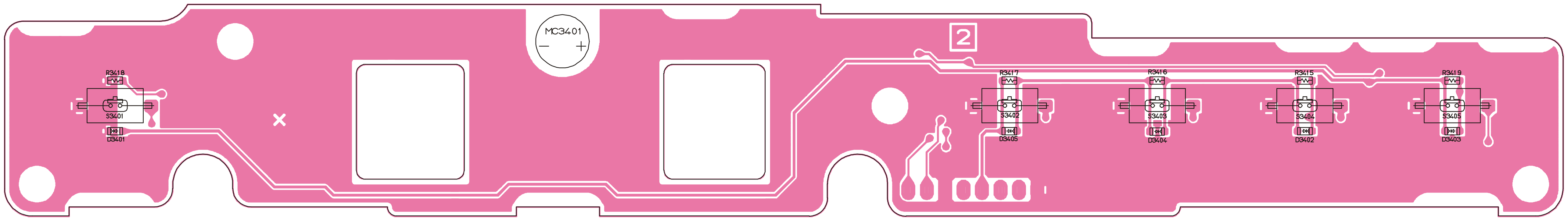
Circuit Diagram



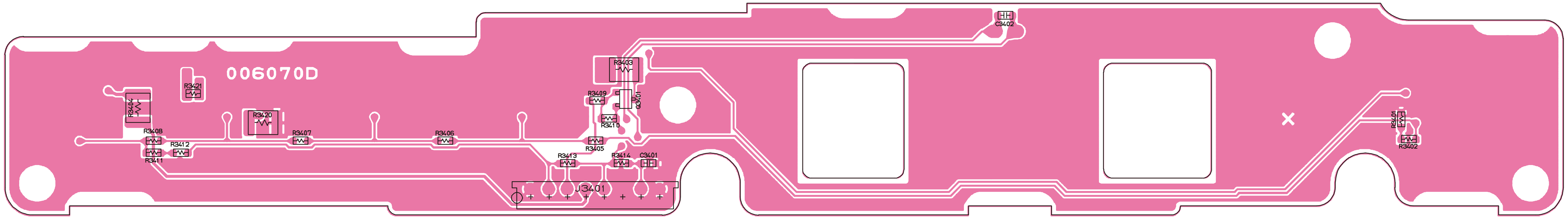


2SA1602A (MF)
(Q3401)

Parts Layout



Side A



Side B

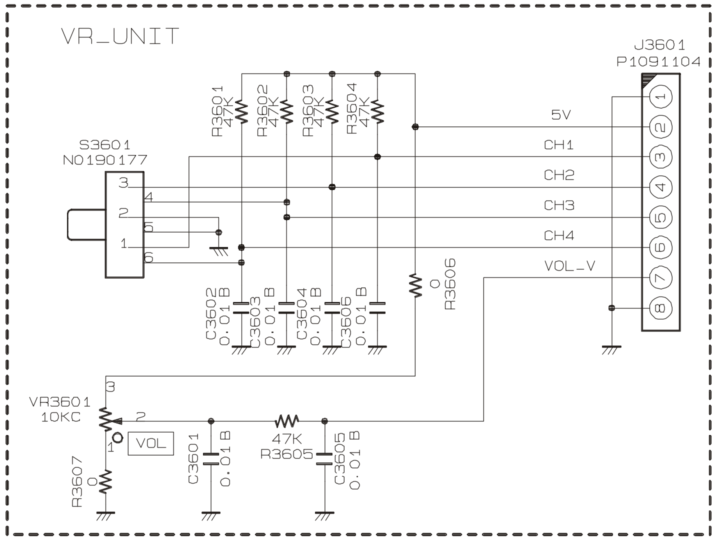
Note:

Parts List

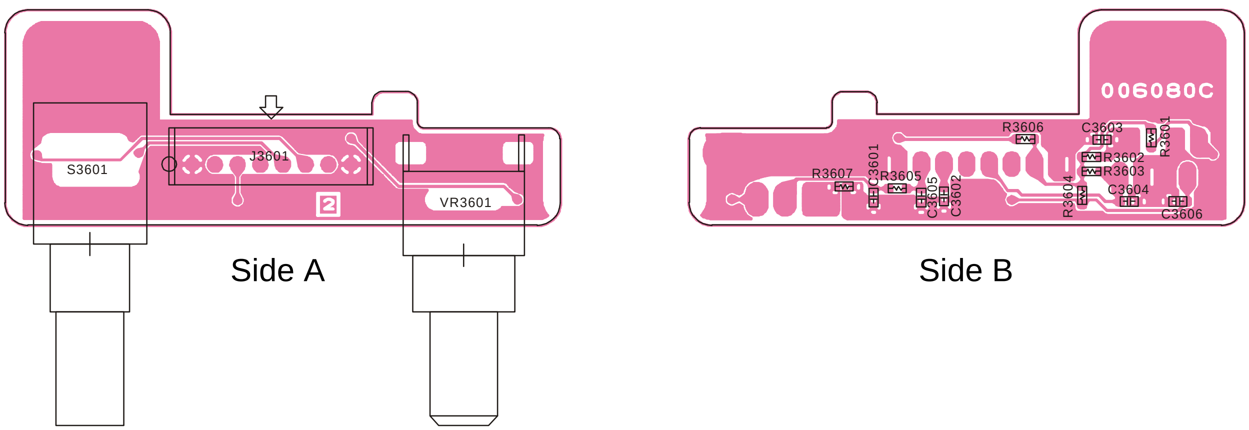
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	PCB with Components					CB1981001				
	Printed Circuit Board					FR006070D		1-		
C 3402	CHIP CAP.	0.001uF	50V	B	GRM39B102K50PT	K22174821		1-	B	
D 3401	LED				TLOU1008(T04)	G2070796		1-	A	
D 3402	LED				TLOU1008(T04)	G2070796		1-	A	
D 3403	LED				TLOU1008(T04)	G2070796		1-	A	
D 3404	LED				TLOU1008(T04)	G2070796		1-	A	
D 3405	LED				TLOU1008(T04)	G2070796		1-	A	
J 3401	CONNECTOR				9110S-08	P1091014		1-	B	
MC3401	MIC. ELEMENT				EM-140	M3290032		1-	A	
Q 3401	TRANSISTOR				2SA1602A-T11-1F	G3116028F		1-	B	
R 3401	CHIP RES.	330k	1/16W	5%	RMC1/16 334JATP	J24185334		1-	B	
R 3402	CHIP RES.	68k	1/16W	5%	RMC1/16 683JATP	J24185683		1-	B	
R 3403	CHIP RES.	180	1/4W	5%	RMC1/4 181JATP	J24245181		1-	B	
R 3404	CHIP RES.	470	1/4W	5%	RMC1/4 471JATP	J24245471		1-	B	
R 3405	CHIP RES.	33k	1/16W	5%	RMC1/16 333JATP	J24185333		1-	B	
R 3406	CHIP RES.	15k	1/16W	5%	RMC1/16 153JATP	J24185153		1-	B	
R 3407	CHIP RES.	12k	1/16W	5%	RMC1/16 123JATP	J24185123		1-	B	
R 3408	CHIP RES.	6.8k	1/16W	5%	RMC1/16 682JATP	J24185682		1-	B	
R 3409	CHIP RES.	6.8k	1/16W	5%	RMC1/16 682JATP	J24185682		1-	B	
R 3410	CHIP RES.	8.2k	1/16W	5%	RMC1/16 822JATP	J24185822		1-	B	
R 3411	CHIP RES.	8.2k	1/16W	5%	RMC1/16 822JATP	J24185822		1-	B	
R 3412	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000		1-	B	
R 3413	CHIP RES.	33k	1/16W	5%	RMC1/16 333JATP	J24185333		1-	B	
R 3414	CHIP RES.	2.2k	1/16W	5%	RMC1/16 222JATP	J24185222		1-	B	
R 3420	CHIP RES.	220	1/4W	5%	RMC1/4 221JATP	J24245221		1-	B	
R 3421	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000		1-	B	
S 3401	TACT SWITCH				SKQDAB	N5090058		1-	A	
S 3402	TACT SWITCH				SKQDAB	N5090058		1-	A	
S 3403	TACT SWITCH				SKQDAB	N5090058		1-	A	
S 3404	TACT SWITCH				SKQDAB	N5090058		1-	A	
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Note:

Circuit Diagram



Parts Layout

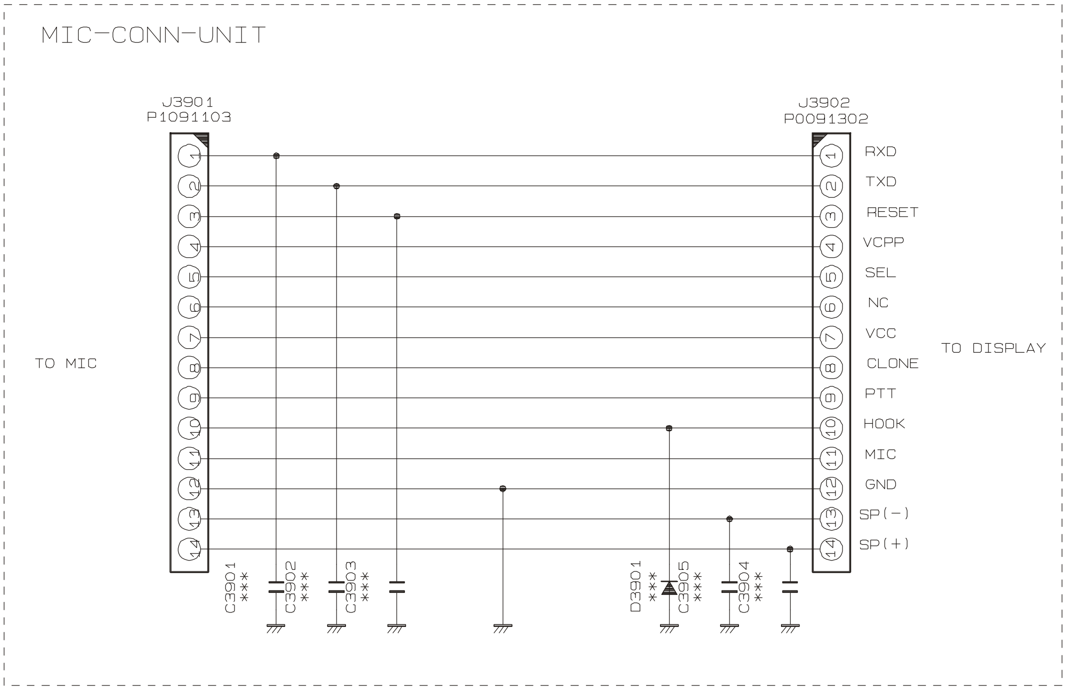


Parts List

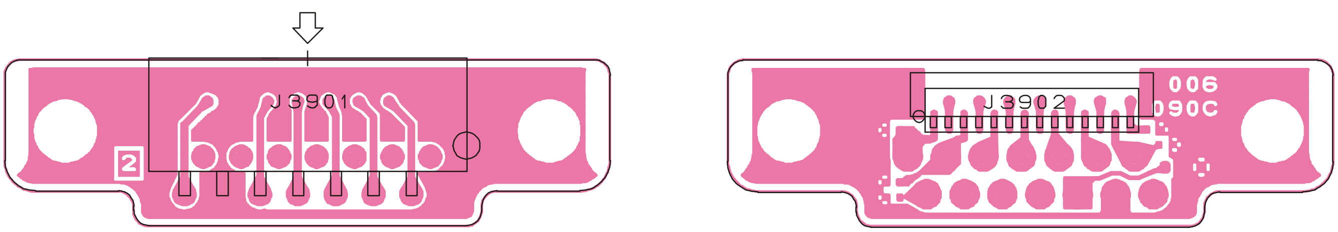
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					*** VR UNIT ***					
	PCB with Components					CB1982001				
	Printed Circuit Board					FR006080C		1-		
C 3601	CHIP CAP.	0.01uF	50V	B	GRM39B103M50PT	K22174823		1-	B	
C 3602	CHIP CAP.	0.01uF	50V	B	GRM39B103M50PT	K22174823		1-	B	
C 3603	CHIP CAP.	0.01uF	50V	B	GRM39B103M50PT	K22174823		1-	B	
C 3604	CHIP CAP.	0.01uF	50V	B	GRM39B103M50PT	K22174823		1-	B	
C 3605	CHIP CAP.	0.01uF	50V	B	GRM39B103M50PT	K22174823		1-	B	
C 3606	CHIP CAP.	0.01uF	50V	B	GRM39B103M50PT	K22174823		1-	B	
J 3601	CONNECTOR				9110S-08L	P1091104		1-	A	
R 3601	CHIP RES.	47k	1/16W	5%	RMC1/16 473JATP	J24185473		1-	B	
R 3602	CHIP RES.	47k	1/16W	5%	RMC1/16 473JATP	J24185473		1-	B	
R 3603	CHIP RES.	47k	1/16W	5%	RMC1/16 473JATP	J24185473		1-	B	
R 3604	CHIP RES.	47k	1/16W	5%	RMC1/16 473JATP	J24185473		1-	B	
R 3605	CHIP RES.	47k	1/16W	5%	RMC1/16 473JATP	J24185473		1-	B	
R 3606	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000		1-	B	
R 3607	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000		1-	B	
S 3601	ROTARY SWITCH				SRZW0L	N0190177		1-	A	
VR3601	POT.				RK09L1120 L=15 10KC	J60800258		1-	A	

MIC CONN Unit

Circuit Diagram



Parts Layout



Side A

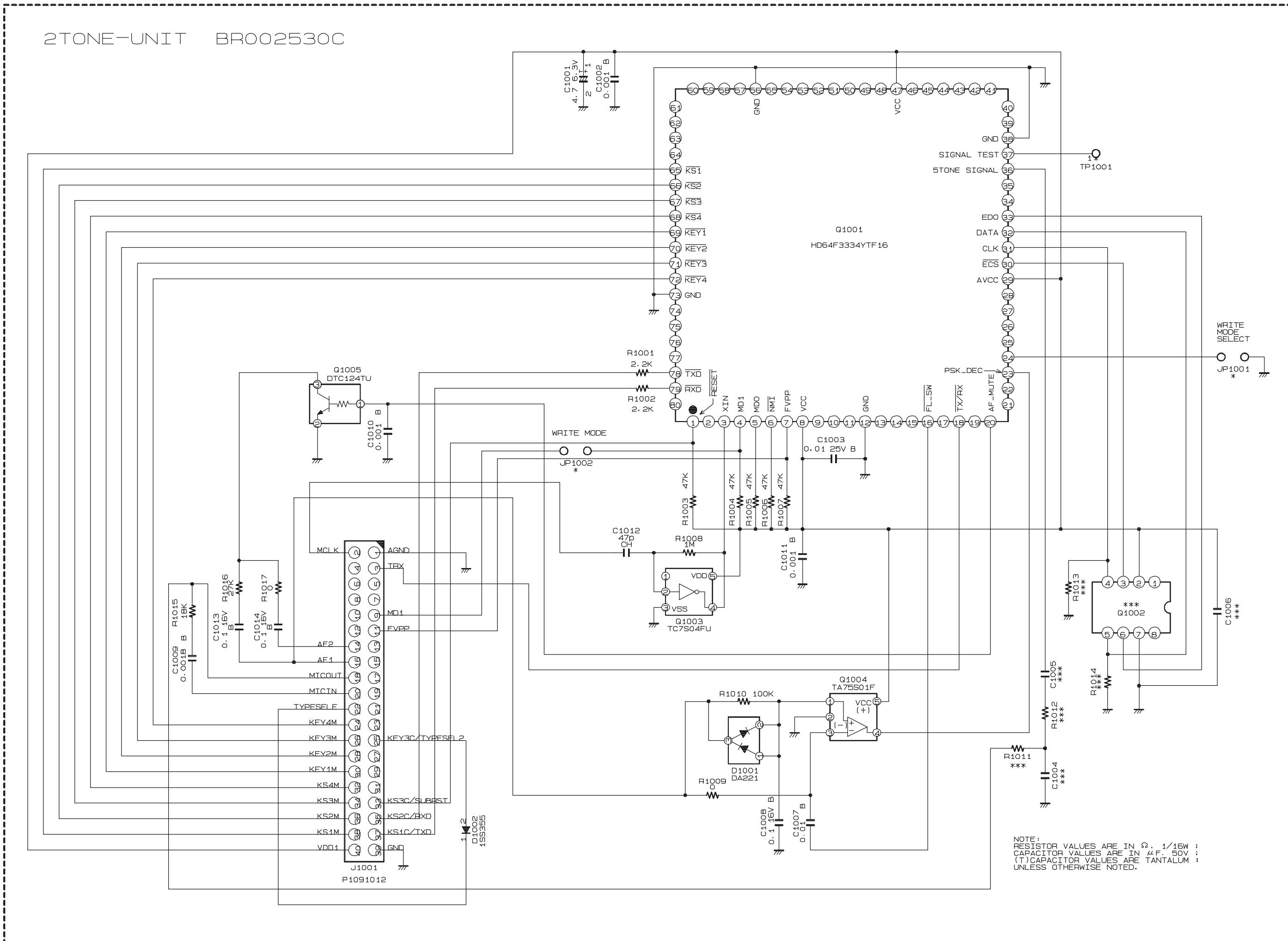
Side B

Parts List

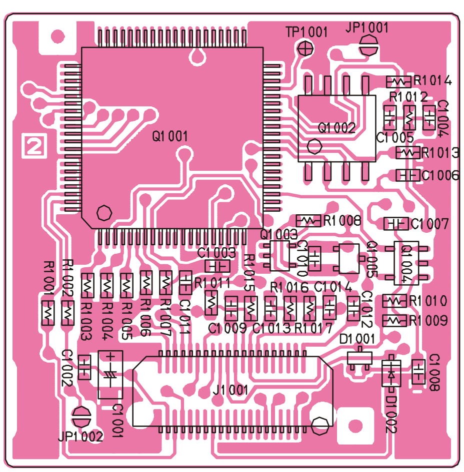
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					*** MIC CONN UNIT ***					
	PCB with Components					CB1978001				
	Printed Circuit Board					FR006090C		1-		
J 3901	CONNECTOR				14FE-ST-VK-N	P1091103		1-	A	
J 3902	CONNECTOR				BM14B-SRSS-TBT	P0091302		1-	B	

F2D-8 2-Tone Decode Unit

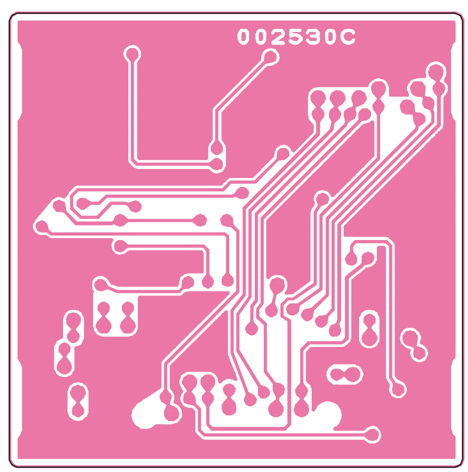
Circuit Diagram



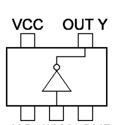
Parts Layout



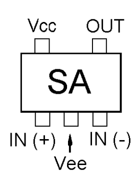
Side A



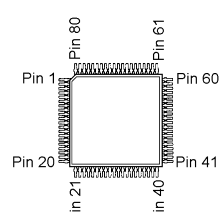
Side B



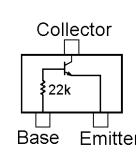
TC7S04FU (E5)
(Q1003)



TA75S01F (SA)
(Q1004)



HD64F3334YTF16
(Q1001)



DTC124TU (05)
(Q1005)

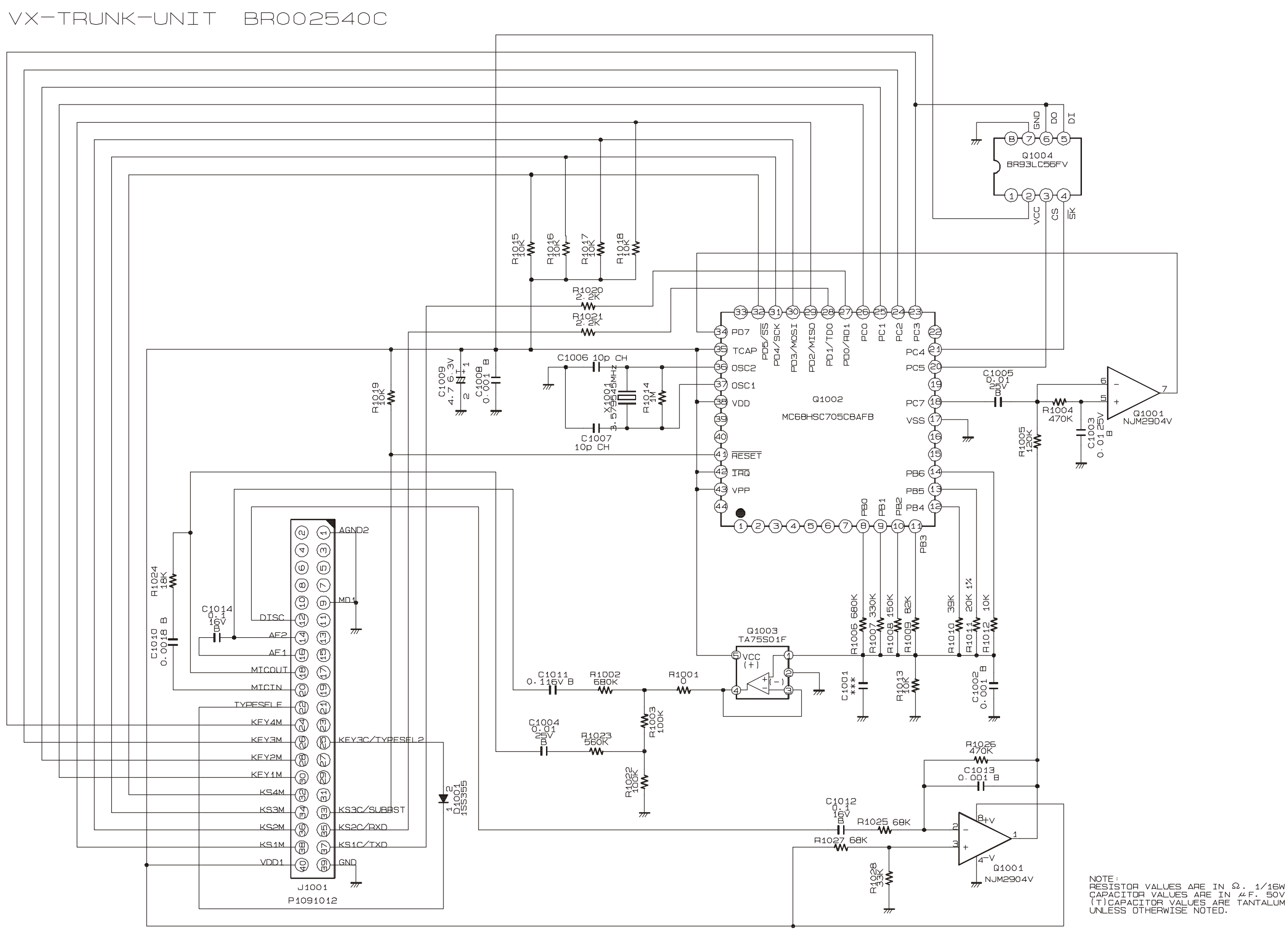
F2D-8 2-Tone Decode Unit

Parts List

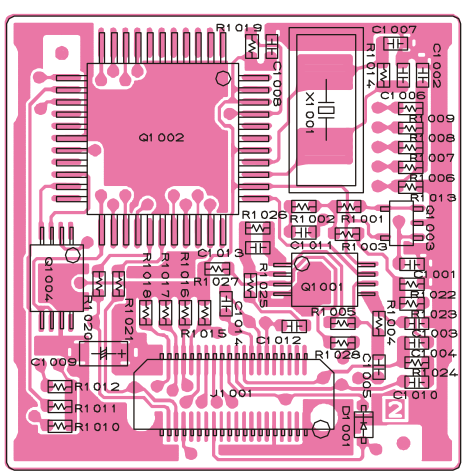
REF.	DESCRIPTION	VALUE	V/W	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT.	SIDE	LAY ADR
					*** F2D-8 ***					
	Printed Circuit Board					FR002530C		1-		
C 1001	CHIP TA.CAP.	4.7uF	6.3V		TEMSVA0J475M-8R	K78080017		1-	A	
C 1002	CHIP CAP.	0.001uF	50V	B	GRM39B102K50PT	K22174821		1-	A	
C 1003	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	A	
C 1007	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	A	
C 1007	CHIP CAP.	0.0015uF	50V	B	GRM39B152M50PT	K22174811		6-	A	
C 1007	CHIP CAP.	0.01uF	50V	B	GRM39B103M50PT	K22174823		18-	A	
C 1008	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	A	
C 1009	CHIP CAP.	0.0018uF	50V	B	GRM39B182M50PT	K22174812		1-	A	
C 1010	CHIP CAP.	0.001uF	50V	B	GRM39B102K50PT	K22174821		1-	A	
C 1011	CHIP CAP.	0.001uF	50V	B	GRM39B102K50PT	K22174821		1-	A	
C 1012	CHIP CAP.	47pF	50V	CH	GRM39CH470J50PT	K22174227		1-	A	
C 1013	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	A	
C 1014	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	A	
D 1001	DIODE				DA221 TL	G2070178		1-	A	
D 1002	DIODE				1SS355 TE-17	G2070470		1-	A	
J 1001	CONNECTOR				AXK5S40035P	P1091012		1-	A	
Q 1001	IC				HD64F3334YTF16 R0226	G1092873		1-	A	
Q 1003	IC				TC7S04FU TE85R	G1091530		1-	A	
Q 1004	IC				TA75S01F TE85R	G1091593		1-	A	
Q 1005	TRANSISTOR				DTC124TU T106	G3070065		1-	A	
R 1001	CHIP RES.	2.2k	1/16W	5%	RMC1/16 222JATP	J24185222		1-	A	
R 1002	CHIP RES.	2.2k	1/16W	5%	RMC1/16 222JATP	J24185222		1-	A	
R 1003	CHIP RES.	47k	1/16W	5%	RMC1/16 473JATP	J24185473		1-	A	
R 1004	CHIP RES.	47k	1/16W	5%	RMC1/16 473JATP	J24185473		1-	A	
R 1005	CHIP RES.	47k	1/16W	5%	RMC1/16 473JATP	J24185473		1-	A	
R 1006	CHIP RES.	47k	1/16W	5%	RMC1/16 473JATP	J24185473		1-	A	
R 1007	CHIP RES.	47k	1/16W	5%	RMC1/16 473JATP	J24185473		1-	A	
R 1008	CHIP RES.	1M	1/16W	5%	RMC1/16 105JATP	J24185105		1-	A	
R 1009	CHIP RES.	4.7k	1/16W	5%	RMC1/16 472JATP	J24185472		1-	A	
R 1009	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000		6-	A	
R 1010	CHIP RES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104		1-	A	
R 1015	CHIP RES.	18k	1/16W	5%	RMC1/16 183JATP	J24185183		1-	A	
R 1016	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000		1-	A	
R 1016	CHIP RES.	27k	1/16W	5%	RMC1/16 273JATP	J24185273		6-	A	
R 1017	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000		1-	A	
	BLIND SHEET					RA0109300		1-		

VTP-50 VX-Trunk Unit

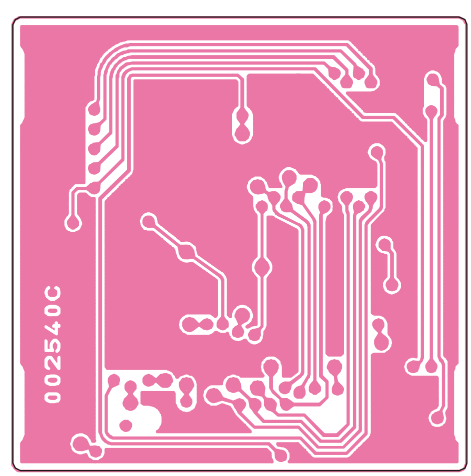
Circuit Diagram



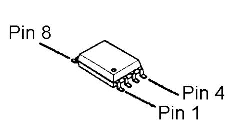
Parts Layout



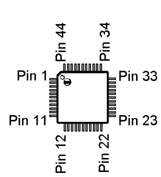
Side A



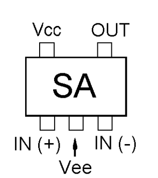
Side B



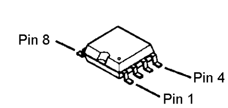
NJM2904V
(Q1001)



MC68HSC705C8A502
(Q1002)



TA75S01F (SA)
(Q1003)



BR93LC56FV
(Q1004)

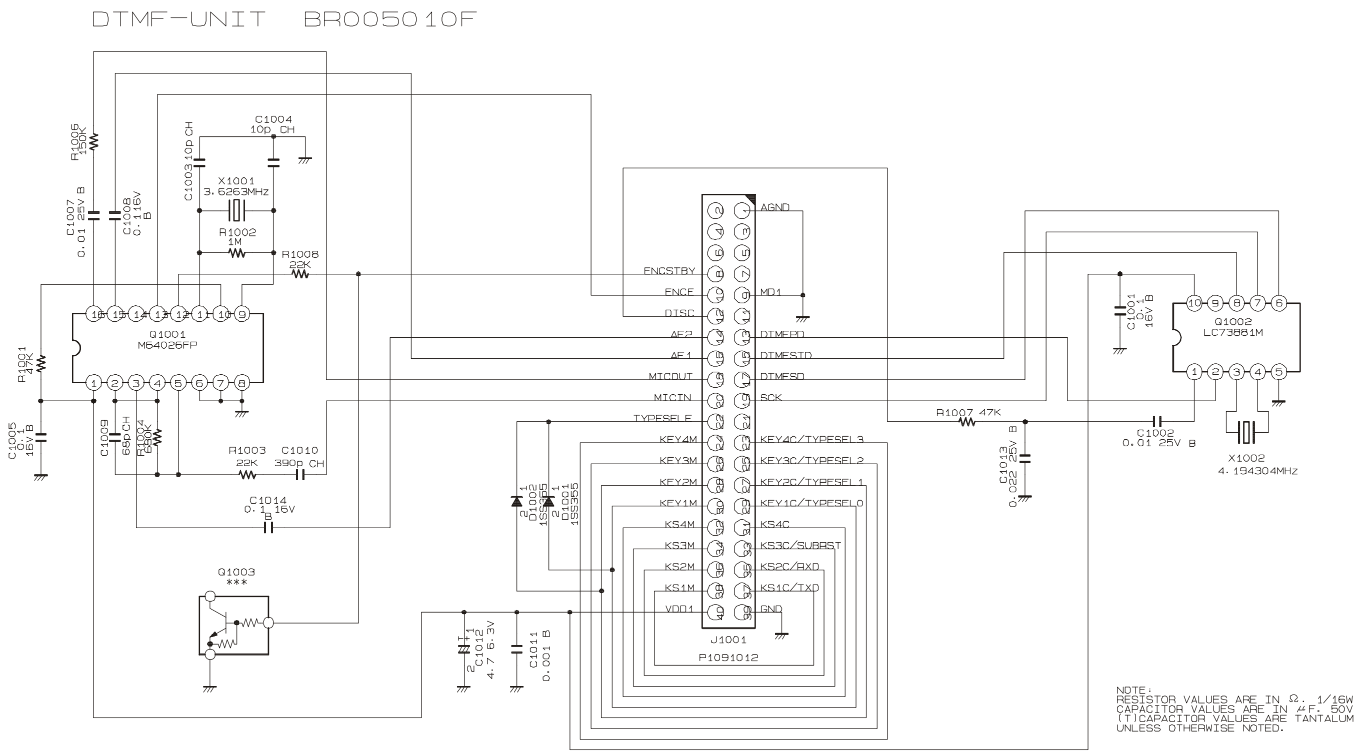
VTP-50 VX-Trunk Unit

Parts List

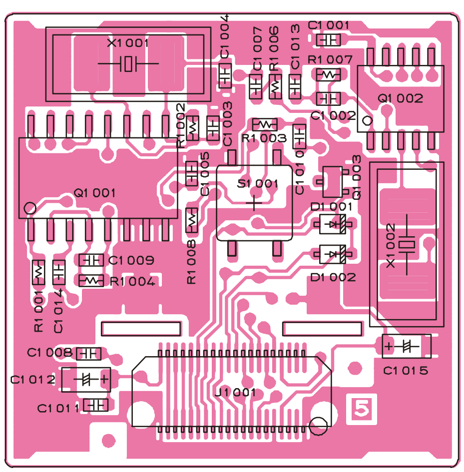
REF.	DESCRIPTION	VALUE	V/W	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT.	SIDE	LAY ADR
					*** VTP-50 ***					
	Printed Circuit Board					FR002540C		1-		
C 1002	CHIP CAP.	0.001uF	50V	B	GRM39B102K50PT	K22174821		1-	A	
C 1003	CHIP CAP.	0.01uF	25V	B	GRM39B103M25PT	K22144802		1-	A	
C 1003	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		9-	A	
C 1004	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	A	
C 1004	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		9-	A	
C 1005	CHIP CAP.	0.01uF	25V	B	GRM39B103M25PT	K22144802		1-	A	
C 1005	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		9-	A	
C 1006	CHIP CAP.	10pF	50V	CH	GRM39CH100C50PT	K22174248		1-	A	
C 1007	CHIP CAP.	10pF	50V	CH	GRM39CH100C50PT	K22174248		1-	A	
C 1008	CHIP CAP.	0.001uF	50V	B	GRM39B102K50PT	K22174821		1-	A	
C 1009	CHIP TA.CAP.	4.7uF	6.3V		TEMSVA0J475M-8R	K78080017		1-	A	
C 1010	CHIP CAP.	0.0018uF	50V	B	GRM39B182M50PT	K22174812		1-	A	
C 1011	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	A	
C 1012	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	A	
C 1013	CHIP CAP.	0.001uF	50V	B	GRM39B102K50PT	K22174821		1-	A	
C 1014	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	A	
D 1001	DIODE				1SS355 TE-17	G2070470		1-	A	
J 1001	CONNECTOR				AXK5S40035P	P1091012		1-	A	
Q 1001	IC				NJM2904V-TE1	G1091677		1-	A	
Q 1002	IC				MC68HSC705C8A502-6030 130	G1092917		1-	A	
Q 1002	IC				MC68HSC705C8A502-6030 131	G1093326		6-	A	
Q 1003	IC				TA75S01F TE85R	G1091593		1-	A	
Q 1004	IC				BR93LC56FV-E2	G1092787		1-	A	
R 1001	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000		1-	A	
R 1002	CHIP RES.	680k	1/16W	5%	RMC1/16 684JATP	J24185684		1-	A	
R 1003	CHIP RES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104		1-	A	
R 1004	CHIP RES.	470k	1/16W	5%	RMC1/16 474JATP	J24185474		1-	A	
R 1005	CHIP RES.	120k	1/16W	5%	RMC1/16 124JATP	J24185124		1-	A	
R 1006	CHIP RES.	680k	1/16W	5%	RMC1/16 684JATP	J24185684		1-	A	
R 1007	CHIP RES.	330k	1/16W	5%	RMC1/16 334JATP	J24185334		1-	A	
R 1008	CHIP RES.	150k	1/16W	5%	RMC1/16 154JATP	J24185154		1-	A	
R 1009	CHIP RES.	82k	1/16W	5%	RMC1/16 823JATP	J24185823		1-	A	
R 1010	CHIP RES.	39k	1/16W	5%	RMC1/16 393JATP	J24185393		1-	A	
R 1011	CHIP RES.	20k	1/16W	1%	RMC1/16 203FTP	J24183203		1-	A	
R 1012	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	A	
R 1013	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	A	
R 1014	CHIP RES.	1M	1/16W	5%	RMC1/16 105JATP	J24185105		1-	A	
R 1015	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	A	
R 1016	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	A	
R 1017	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	A	
R 1018	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	A	
R 1019	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	A	
R 1020	CHIP RES.	2.2k	1/16W	5%	RMC1/16 222JATP	J24185222		1-	A	
R 1021	CHIP RES.	2.2k	1/16W	5%	RMC1/16 222JATP	J24185222		1-	A	
R 1022	CHIP RES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104		1-	A	
R 1023	CHIP RES.	560k	1/16W	5%	RMC1/16 564JATP	J24185564		1-	A	
R 1024	CHIP RES.	18k	1/16W	5%	RMC1/16 183JATP	J24185183		1-	A	
R 1025	CHIP RES.	68k	1/16W	5%	RMC1/16 683JATP	J24185683		1-	A	
R 1026	CHIP RES.	470k	1/16W	5%	RMC1/16 474JATP	J24185474		1-	A	
R 1027	CHIP RES.	68k	1/16W	5%	RMC1/16 683JATP	J24185683		1-	A	
R 1028	CHIP RES.	33k	1/16W	5%	RMC1/16 333JATP	J24185333		1-	A	
X 1001	XTAL SX-1315	3.579545MHz			3.579545MHZ	H0103185		1-	A	
	BLIND SHEET					RA0109300		1-		

FVP-25 Encryption / DTMF Pager Unit

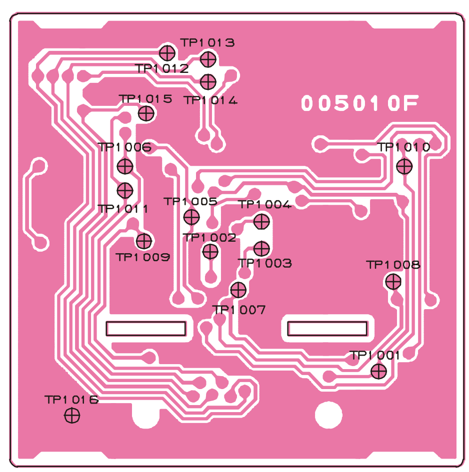
Circuit Diagram



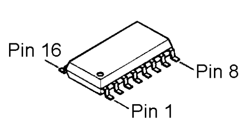
Parts Layout



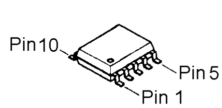
Side A



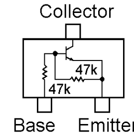
Side B



M64026FP
(Q1001)



LC73881
(Q1002)



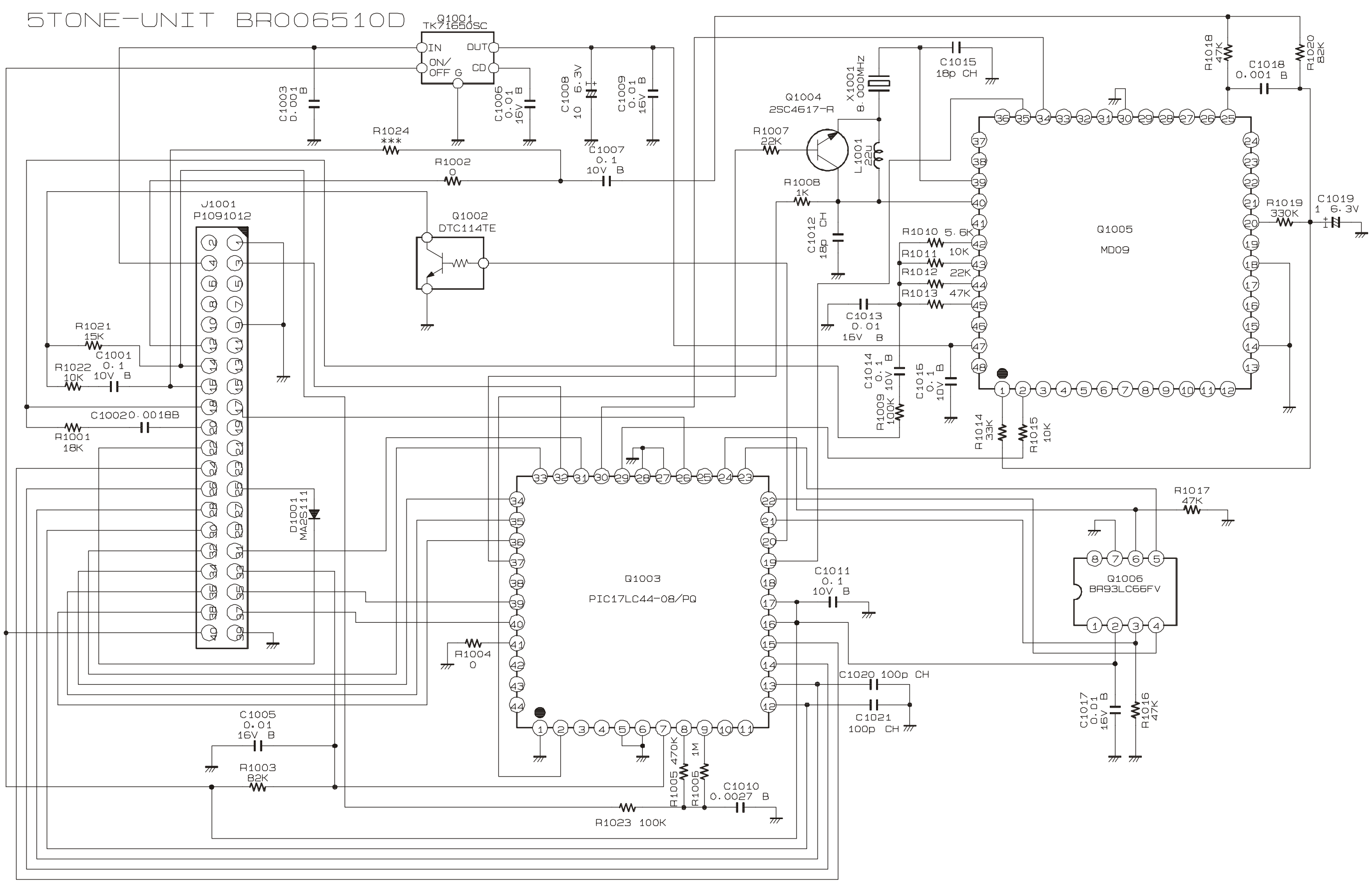
DTC144EU (26)
(Q1003)

FVP-25 Encryption / DTMF Pager Unit

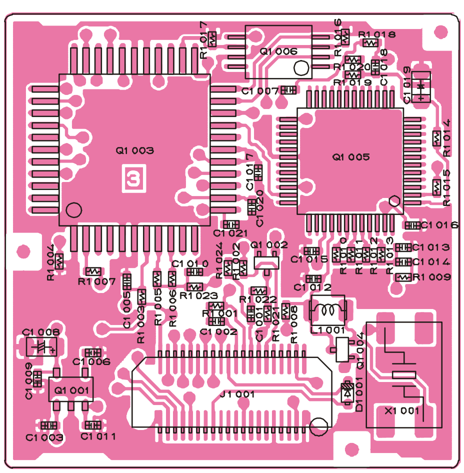
Parts List

REF.	DESCRIPTION	VALUE	V/W	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT.	SIDE	LAY ADR
					*** FVP-25 ***					
	Printed Circuit Board					FR005010F		1-		
C 1001	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	A	B1
C 1002	CHIP CAP.	0.01uF	25V	B	GRM39B103M25PT	K22144802		1-	A	B1
C 1003	CHIP CAP.	10pF	50V	CH	GRM39CH100D50PT	K22174211		1-	A	A1
C 1004	CHIP CAP.	10pF	50V	CH	GRM39CH100D50PT	K22174211		1-	A	A1
C 1005	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	A	A1
C 1007	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	A	A1
C 1007	CHIP CAP.	0.01uF	25V	B	GRM39B103M25PT	K22144802		32-	A	A1
C 1008	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	A	A2
C 1009	CHIP CAP.	68pF	50V	CH	GRM39CH680J50PT	K22174231		1-	A	A1
C 1010	CHIP CAP.	390pF	50V	CH	GRM39CH391J50PT	K22174255		1-	A	A1
C 1011	CHIP CAP.	0.001uF	50V	B	GRM39B102K50PT	K22174821		1-	A	A2
C 1012	CHIP TA.CAP.	4.7uF	6.3V		TEMSVA0J475M-8R	K78080017		1-	A	A2
C 1013	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	A	A1
C 1014	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	A	A1
D 1001	DIODE				1SS355 TE-17	G2070470		1-	A	B1
D 1002	DIODE				1SS355 TE-17	G2070470		1-	A	B1
J 1001	CONNECTOR				AXK5S40035P	P1091012		1-	A	A2
Q 1001	IC				M64026FP-650C	G1092754		1-	A	A1
Q 1002	IC				LC73881M-TLM	G1092755		1-	A	B1
Q 1003	TRANSISTOR				DTC144EU T106	G3070041		1-	A	B1
R 1001	CHIP RES.	47k	1/16W	5%	RMC1/16 473JATP	J24185473		1-	A	A1
R 1002	CHIP RES.	1M	1/16W	5%	RMC1/16 105JATP	J24185105		1-	A	A1
R 1003	CHIP RES.	22k	1/16W	5%	RMC1/16 223JATP	J24185223		1-	A	A1
R 1004	CHIP RES.	680k	1/16W	5%	RMC1/16 684JATP	J24185684		1-	A	A1
R 1006	CHIP RES.	150k	1/16W	5%	RMC1/16 154JATP	J24185154		1-	A	A1
R 1007	CHIP RES.	47k	1/16W	5%	RMC1/16 473JATP	J24185473		1-	A	B1
R 1008	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	A	A1
R 1008	CARBON FILM RES.	22k	1/8W	5%	RD18TJ223 22K	J01215223		14-	A	A1
R 1008	CHIP RES.	22k	1/16W	5%	RMC1/16 223JATP	J24185223		17-	A	A1
X 1001	XTAL SX-1315	3.6263MHz			3.6263MHZ	H0103183		1-	A	A1
X 1002	XTAL SX-1315	4.194304MHz			4.194304MHZ	H0103184		1-	A	B1
	BLIND SHEET					RA0109300		1-		

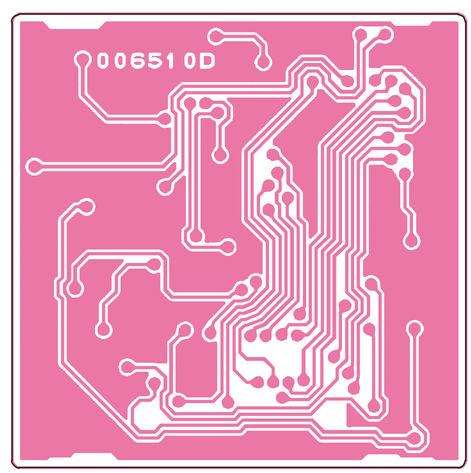
Circuit Diagram



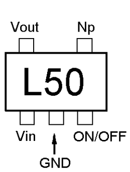
Parts Layout



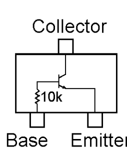
Side A



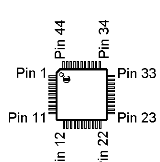
Side B



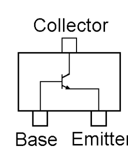
TK71650SC (L50)
(Q1001)



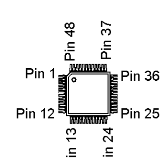
DTC114TE (04)
(Q1002)



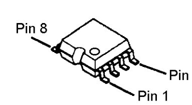
PIC17LC44-08/PQ
(Q1003)



2SC4617 (BR)
(Q1004)



MD09
(Q1005)



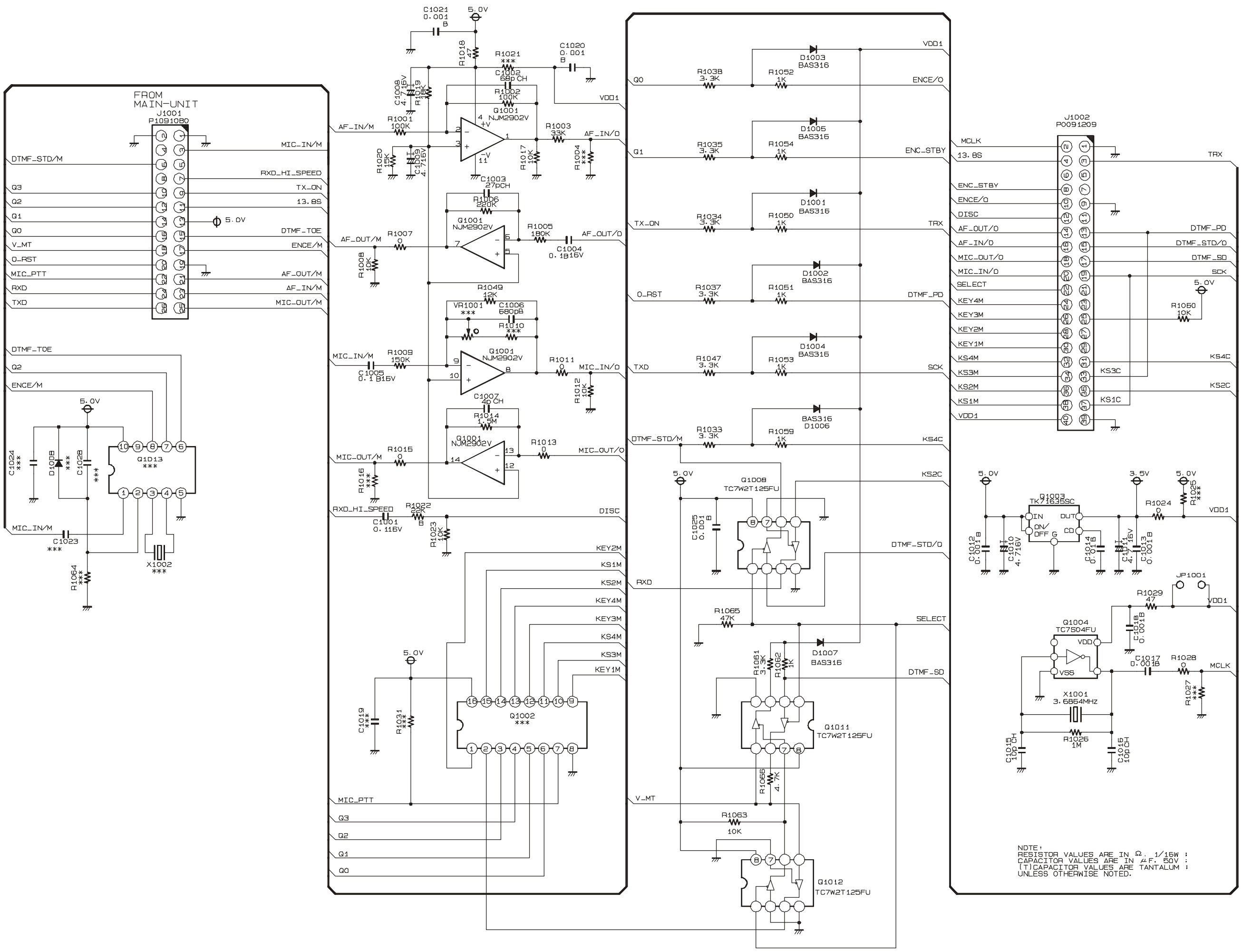
BR93LC66FV
(Q1006)

F5D-14 5-Tone Unit

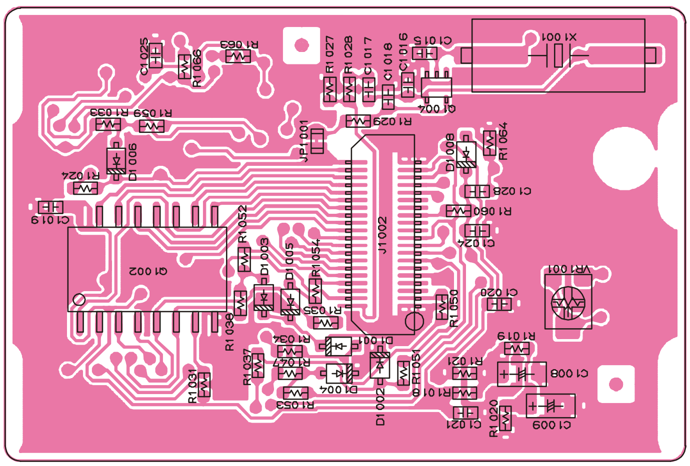
Parts List

REF.	DESCRIPTION	VALUE	V/W	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT.	SIDE	LAY ADR
					*** F5D-14 ***					
	Printed Circuit Board					FR006510B		1-		
	Printed Circuit Board					FR006510D		3-		
C 1001	CHIP CAP.	0.1uF	10V	B	GRM36B104K10PT	K22108802		1-	A	
C 1002	CHIP CAP.	0.0018uF	50V	B	GRM36B182K50PT	K22178812		1-	A	
C 1003	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	A	
C 1005	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		1-	A	
C 1006	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		1-	A	
C 1007	CHIP CAP.	0.1uF	10V	B	GRM36B104K10PT	K22108802		1-	A	
C 1008	CHIP TA.CAP.	10uF	6.3V		EEJK0JS106R	K78080079		1-	A	
C 1008	CHIP TA.CAP.	10uF	6.3V		ECST0JZ106R	K78080078		8-	A	
C 1009	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		1-	A	
C 1010	CHIP CAP.	0.0027uF	50V	B	GRM36B272K50PT	K22178814		1-	A	
C 1011	CHIP CAP.	0.1uF	10V	B	GRM36B104K10PT	K22108802		1-	A	
C 1012	CHIP CAP.	18pF	50V	CH	GRM36CH180J50PT	K22178218		1-	A	
C 1013	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		1-	A	
C 1014	CHIP CAP.	0.1uF	10V	B	GRM36B104K10PT	K22108802		1-	A	
C 1015	CHIP CAP.	18pF	50V	CH	GRM36CH180J50PT	K22178218		1-	A	
C 1016	CHIP CAP.	0.1uF	10V	B	GRM36B104K10PT	K22108802		1-	A	
C 1017	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		1-	A	
C 1018	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	A	
C 1019	CHIP TA.CAP.	1uF	6.3V		TMCP0J105MTR	K78080071		1-	A	
C 1020	CHIP CAP.	100pF	50V	CH	GRM36CH101J50PT	K22178236		1-	A	
C 1021	CHIP CAP.	100pF	50V	CH	GRM36CH101J50PT	K22178236		1-	A	
D 1001	DIODE				MA2S111-(TX)	G2070614		1-	A	
J 1001	CONNECTOR				AXK5S40035P	P1091012		1-	A	
L 1001	M.RFC	22uH			ELJ-FC220K	L1690201		1-	A	
Q 1001	IC				TK71650SCL	G1093136		1-	A	
Q 1002	TRANSISTOR				DTC114TE TL	G3070225		1-	A	
Q 1003	IC				PIC17LC44-08/PQ	S8100917		1-	A	
Q 1004	TRANSISTOR				2SC4617 TL R	G3346178R		1-	A	
Q 1005	IC				MD09	G1093276		1-	A	
Q 1006	IC				BR93LC66FV-E2	G1092853		1-	A	
R 1001	CHIP RES.	18k	1/16W	5%	RMC1/16S 183JTH	J24189040		1-	A	
R 1002	CHIP RES.	0	1/16W	5%	RMC1/16S JPTH	J24189070		1-	A	
R 1003	CHIP RES.	82k	1/16W	5%	RMC1/16S 823JTH	J24189048		1-	A	
R 1004	CHIP RES.	0	1/16W	5%	RMC1/16S JPTH	J24189070		1-	A	
R 1005	CHIP RES.	470k	1/16W	5%	RMC1/16S 474JTH	J24189057		1-	A	
R 1006	CHIP RES.	1M	1/16W	5%	RMC1/16S 105JTH	J24189061		1-	A	
R 1007	CHIP RES.	22k	1/16W	5%	RMC1/16S 223JTH	J24189041		1-	A	
R 1008	CHIP RES.	1k	1/16W	5%	RMC1/16S 102JTH	J24189025		1-	A	
R 1009	CHIP RES.	100k	1/16W	5%	RMC1/16S 104JTH	J24189049		1-	A	
R 1010	CHIP RES.	5.6k	1/16W	5%	RMC1/16S 562JTH	J24189034		1-	A	
R 1011	CHIP RES.	10k	1/16W	5%	RMC1/16S 103JTH	J24189037		1-	A	
R 1012	CHIP RES.	22k	1/16W	5%	RMC1/16S 223JTH	J24189041		1-	A	
R 1013	CHIP RES.	47k	1/16W	5%	RMC1/16S 473JTH	J24189045		1-	A	
R 1014	CHIP RES.	33k	1/16W	5%	RMC1/16S 333JTH	J24189043		1-	A	
R 1015	CHIP RES.	10k	1/16W	5%	RMC1/16S 103JTH	J24189037		1-	A	
R 1016	CHIP RES.	47k	1/16W	5%	RMC1/16S 473JTH	J24189045		1-	A	
R 1017	CHIP RES.	47k	1/16W	5%	RMC1/16S 473JTH	J24189045		1-	A	
R 1018	CHIP RES.	47k	1/16W	5%	RMC1/16S 473JTH	J24189045		1-	A	
R 1019	CHIP RES.	330k	1/16W	5%	RMC1/16S 334JTH	J24189055		1-	A	
R 1020	CHIP RES.	82k	1/16W	5%	RMC1/16S 823JTH	J24189048		1-	A	
R 1021	CHIP RES.	15k	1/16W	5%	RMC1/16S 153JTH	J24189039		1-	A	
R 1022	CHIP RES.	10k	1/16W	5%	RMC1/16S 103JTH	J24189037		1-	A	
R 1023	CHIP RES.	100k	1/16W	5%	RMC1/16S 104JTH	J24189049		1-	A	
X 1001	XTAL 94SMX	8MHz			8.000MHZ	H0103248		1-	A	
	BLIND SHEET					RA0109300		1-		

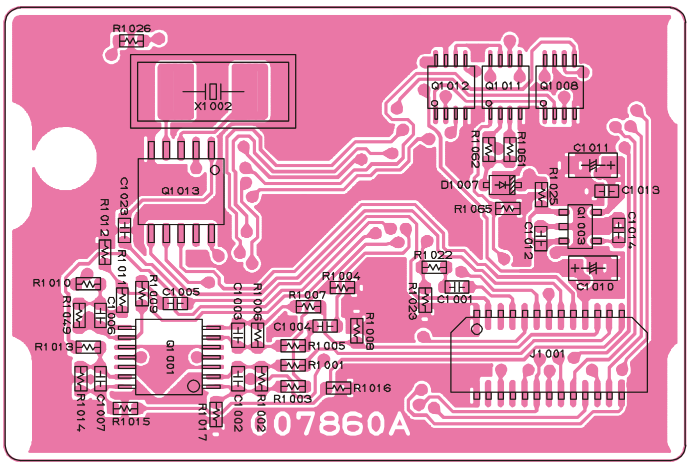
Circuit Diagram



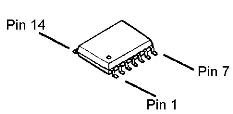
Parts Layout



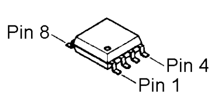
Side A



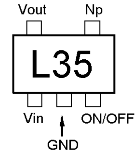
Side B



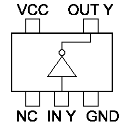
NJM2902V
(Q1001)



TC7WT125FU
(Q1008, 1011,
1012)



TK71635SCL (L35)
(Q1003)



TC7S04FU (E5)
(Q1004)

FIF-7 Connection Unit

Parts List

REF.	DESCRIPTION	VALUE	V/W	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT.	SIDE	LAY ADR
					*** FIF-7 ***					
	Printed Circuit Board					FR007860A		1-		
C 1001	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	B	
C 1002	CHIP CAP.	68pF	50V	CH	GRM39CH680J50PT	K22174231		1-	B	
C 1003	CHIP CAP.	27pF	50V	CH	GRM39CH270J50PT	K22174221		1-	B	
C 1004	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	B	
C 1005	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	B	
C 1006	CHIP CAP.	680pF	50V	B	GRM39B681M50PT	K22174807		1-	B	
C 1007	CHIP CAP.	4pF	50V	CH	GRM39CH040C50PT	K22174205		1-	B	
C 1008	CHIP TA.CAP.	4.7uF	16V		TEMSVA1C475M-8R	K78120031		1-	A	
C 1009	CHIP TA.CAP.	4.7uF	16V		TEMSVA1C475M-8R	K78120031		1-	A	
C 1010	CHIP TA.CAP.	4.7uF	16V		TEMSVA1C475M-8R	K78120031		1-	B	
C 1011	CHIP TA.CAP.	4.7uF	16V		TEMSVA1C475M-8R	K78120031		1-	B	
C 1012	CHIP CAP.	0.001uF	50V	B	GRM39B102K50PT	K22174821		1-	B	
C 1013	CHIP CAP.	0.001uF	50V	B	GRM39B102K50PT	K22174821		1-	B	
C 1014	CHIP CAP.	0.01uF	50V	B	GRM39B103M50PT	K22174823		1-	B	
C 1015	CHIP CAP.	10pF	50V	CH	GRM39CH100D50PT	K22174211		1-	A	
C 1016	CHIP CAP.	10pF	50V	CH	GRM39CH100D50PT	K22174211		1-	A	
C 1017	CHIP CAP.	0.001uF	50V	B	GRM39B102K50PT	K22174821		1-	A	
C 1018	CHIP CAP.	0.001uF	50V	B	GRM39B102K50PT	K22174821		1-	A	
C 1020	CHIP CAP.	0.001uF	50V	B	GRM39B102K50PT	K22174821		1-	A	
C 1021	CHIP CAP.	0.001uF	50V	B	GRM39B102K50PT	K22174821		1-	A	
C 1025	CHIP CAP.	0.001uF	50V	B	GRM39B102K50PT	K22174821		1-	A	
D 1001	DIODE				BAS316	G2070716		1-	A	
D 1002	DIODE				BAS316	G2070716		1-	A	
D 1003	DIODE				BAS316	G2070716		1-	A	
D 1004	DIODE				BAS316	G2070716		1-	A	
D 1005	DIODE				BAS316	G2070716		1-	A	
D 1006	DIODE				BAS316	G2070716		1-	A	
D 1007	DIODE				BAS316	G2070716		1-	B	
J 1001	CONNECTOR				AXN326C038P	P1091080		1-	B	
J 1002	CONNECTOR				AXK6S40535P	P0091209		1-	A	
Q 1001	IC				NJM2902V-TE1	G1091679		1-	B	
Q 1003	IC				TK71635SCL	G1093135		1-	B	
Q 1004	IC				TC7S04FU TE85R	G1091530		1-	A	
Q 1008	IC				TC7W2T125FU(TAPE)	G1093520		1-	B	
Q 1011	IC				TC7W2T125FU(TAPE)	G1093520		1-	B	
Q 1012	IC				TC7W2T125FU(TAPE)	G1093520		1-	B	
R 1001	CHIP RES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104		1-	B	
R 1002	CHIP RES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104		1-	B	
R 1003	CHIP RES.	33k	1/16W	5%	RMC1/16 333JATP	J24185333		1-	B	
R 1005	CHIP RES.	180k	1/16W	5%	RMC1/16 184JATP	J24185184		1-	B	
R 1006	CHIP RES.	220k	1/16W	5%	RMC1/16 224JATP	J24185224		1-	B	
R 1007	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000		1-	B	
R 1008	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	B	
R 1009	CHIP RES.	150k	1/16W	5%	RMC1/16 154JATP	J24185154		1-	B	
R 1011	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000		1-	B	
R 1012	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	B	
R 1013	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000		1-	B	
R 1014	CHIP RES.	1.5M	1/16W	5%	RMC1/16 155JATP	J24185155		1-	B	
R 1015	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000		1-	B	
R 1017	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	B	
R 1018	CHIP RES.	47	1/16W	5%	RMC1/16 470JATP	J24185470		1-	A	
R 1019	CHIP RES.	18k	1/16W	5%	RMC1/16 183JATP	J24185183		1-	A	
R 1020	CHIP RES.	15k	1/16W	5%	RMC1/16 153JATP	J24185153		1-	A	
R 1022	CHIP RES.	22k	1/16W	5%	RMC1/16 223JATP	J24185223		1-	B	
R 1023	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	B	

REF.	DESCRIPTION	VALUE	V/W	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT.	SIDE	
R 1024	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000		1-	A	
R 1026	CHIP RES.	1M	1/16W	5%	RMC1/16 105JATP	J24185105		1-	B	
R 1028	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000		1-	A	
R 1029	CHIP RES.	47	1/16W	5%	RMC1/16 470JATP	J24185470		1-	A	
R 1033	CHIP RES.	3.3k	1/16W	5%	RMC1/16 332JATP	J24185332		1-	A	
R 1034	CHIP RES.	3.3k	1/16W	5%	RMC1/16 332JATP	J24185332		1-	A	
R 1035	CHIP RES.	3.3k	1/16W	5%	RMC1/16 332JATP	J24185332		1-	A	
R 1037	CHIP RES.	3.3k	1/16W	5%	RMC1/16 332JATP	J24185332		1-	A	
R 1038	CHIP RES.	3.3k	1/16W	5%	RMC1/16 332JATP	J24185332		1-	A	
R 1047	CHIP RES.	3.3k	1/16W	5%	RMC1/16 332JATP	J24185332		1-	A	
R 1049	CHIP RES.	12k	1/16W	5%	RMC1/16 123JATP	J24185123		1-	B	
R 1050	CHIP RES.	1k	1/16W	5%	RMC1/16 102JATP	J24185102		1-	A	
R 1051	CHIP RES.	1k	1/16W	5%	RMC1/16 102JATP	J24185102		1-	A	
R 1052	CHIP RES.	1k	1/16W	5%	RMC1/16 102JATP	J24185102		1-	A	
R 1053	CHIP RES.	1k	1/16W	5%	RMC1/16 102JATP	J24185102		1-	A	
R 1054	CHIP RES.	1k	1/16W	5%	RMC1/16 102JATP	J24185102		1-	A	
R 1059	CHIP RES.	1k	1/16W	5%	RMC1/16 102JATP	J24185102		1-	A	
R 1060	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	A	
R 1061	CHIP RES.	3.3k	1/16W	5%	RMC1/16 332JATP	J24185332		1-	B	
R 1062	CHIP RES.	1k	1/16W	5%	RMC1/16 102JATP	J24185102		1-	B	
R 1063	CHIP RES.	10k	1/16W	5%	RMC1/16 103JATP	J24185103		1-	A	
R 1065	CHIP RES.	47k	1/16W	5%	RMC1/16 473JATP	J24185473		1-	B	
R 1066	CHIP RES.	4.7k	1/16W	5%	RMC1/16 472JATP	J24185472		1-	A	
X 1001	XTAL SX-1319	3.6864MHz			3.6864MHZ	H0103214		1-	A	
	AS.POLY BAG				100X100	V3002001		1-		
	TAPTITE SCREW				M2.6X6	U24206001		1-		
	POLY BAG				70X100	V3000028		1-		
	SPONGE RUBBER					RA0356400		1-		

EC034N90A